

PROFITABLE PRACTICE



GEORGE WOOD CLAPP, D.D.S.

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"BROTHER BILL'S LETTERS," "THE MECHANICAL
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"PROSTHETIC ARTICULATION"

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“He profits most
who serves best”

—*Author Unknown.*

Dentistry as a means of service is a profession;
As a means of livelihood it is a business.

Bill



THANKS FOR AID


The data in this book has been collected with the assistance of many dentists, especially that of Drs. Brett, Cummer, Holroyd, Kirby, Lanphear, Merker, McGeorge, Van Houten, Ruyl, Richardson, Spies, Ulsaver, Williams, and H. R. C. Wilson. Many dentists have sent information without attaching their names.

To all who have helped, hearty thanks are given.

May they find their reward in the consciousness of having helped to carry a message to some thousands of members of a great profession. And may their efforts speed the day when the discussion of the business elements in practice will receive the same full, free and beneficial discussion that is now accorded to technical questions.

Then will dawn the day of fees that are fair to patients and to dentists.

THE AUTHOR.



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FOREWORD

BROTHER BILL RECEIVES A LETTER FROM A DENTIST WHO HAS RECENTLY SUSTAINED SOME MENTAL SHOCKS

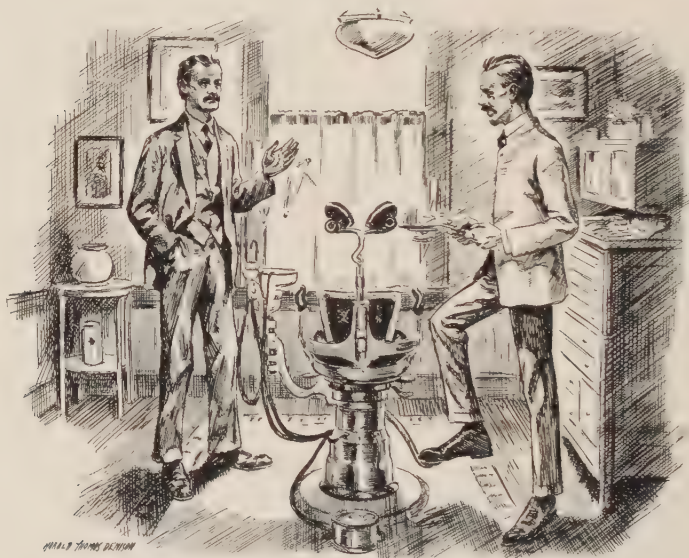
MY DEAR DOCTOR:

I am in receipt of your letter recounting the experience with the bricklayer. I don't wonder that it set you thinking, and that certain questions have pounded insistently at your mind, asserting their importance and demanding answers.

You write that you recently had occasion to render extended service to a bricklayer; that he became interested in the mechanics of the work and that you and he drifted from a discussion of the mechanical applications in your different lines to a discussion of the expense and net money returns. You say that your shocks began right there and that they have lasted ever since.

It seems that he knew all about the economics of his work, or, as he called it, "the business side"; that he knew how to figure costs of materials, and that in making estimates he always put his labor first, "so he'd be sure to get it in," as he explained. He included every detail, added 10 per cent. for insurance against errors,

and either got a price very close to his figures, or, as he phrased it, "I let some one else do the work for nothing." You tell me that when he asked you how you made estimates on your work so as to be sure of the



In making estimates, he always put down his labor first, "so he'd be sure to get it in."

profits, you did not answer, but that it struck in your own mind a chord that had for a long time been waiting to be struck and that it sent out a note that still rings. Every time you take a contract now, the question presses itself home. "How can I be sure of a profit on this service, and how much will it be?" You feel that you should know the answer.

You write also that a number of smaller mental jars handed you by this bricklayer have still further upset your ideas of the fitness of things. You learned that when he works for others his regular wages for 45 hours of labor a week bring him \$30 and that this amount is often increased by extra fine work in regular hours, or by extra work at increased pay. When he takes contracts, he often makes much more. You say he became greatly interested in the technic of your work. He watched you carve an inlay and make and finish it, and also the top of a crown. When he saw the finished work he said: "If these big, coarse hands of mine could do work like that, I could get \$5 an hour for every hour I could work." You don't tell what your answer was, but you say that if he had branded it on your brain he couldn't have brought home to you more forcibly the question, "What do I get per hour?" and also those other questions so closely allied, "How do I know?" and "Where is it?"

It is a jolt to have some one whom we have previously overlooked, bring us down from the altitude at which we think we live, and show us that we have seen "as through a glass, darkly," that we never lived where we thought we did and that the only persons we have fooled have been ourselves. You say that the bricklayer completed your discomfiture when he got enthusiastic over what he and his wife, to whom he referred proudly as "the madam," were accomplishing. You learned that

he and his wife were about the age of you and your wife, that they have three children to your two, and they have purchased land, built their home and two houses to rent, and will soon be able to live well on rents and



“And ‘the madam’ will take her sewing and sit by me, and we’ll talk about how comfortable we are.”

save his earnings with which to build more houses. You said it seemed to you that you must get away when he said happily, “I tell you when we get old, we’re not going to be down and out, living on the children or our friends or out at the County Farm. No siree, we’ll have enough put away so that I can sit on the front porch and smoke awhile, and then walk down town and see the other boys work like I used to, or, if the children

live near, drop in and pass an hour with them. And the madam will take her sewing and sit by me and we'll talk about the days we've gone through and how comfortable we are. I was saying to her only yesterday that in a few years we must go down south some of these cold winters and see how folks live where it's warm. That must be the life."

I guess you are correct when you write that his picture of happy old age was about the crowning point of your mental discomfort and that you were glad when his work was done and he ceased coming. But you say that though he comes no more in the flesh, the things he set going in your mind will not down, and that his closing phrase of his future as he saw it wakes you from your dreams. "That's the life." What's the life? What's the life for you and yours? There are no houses paid for or unpaid for to bring in rent, and none in prospect. There is no equivalent in other investments. You live in a more expensive house, set a better table, wear better clothes, move in more educated society. But apparently his modest clothes and home are insured to him for life and you hold yours from day to day by the strength of your hands and brain.

In spite of your professional training, your investment, your valuable service and your social standing, you don't earn enough more than this bricklayer to support you in proper form and save as much as he is saving against old age. You have nothing but the unceas-

ing activity, the dependence upon daily, weekly and monthly earnings, for as far ahead as you can see. What is to happen when you earn less than you do now, or if you are ill and earn nothing? What is to be "the life" for you in old age, say after sixty or sixty-five, when nine people out of ten become dependent upon relatives or charity? What is to be "the life" for your family if you are taken away? When you are old, can you sit on the porch and smoke if you don't want to work, or walk down town and see others work as you once did, and go home to lunch and say, "Well, mother, they're at it just like I used to be?" And can you and "mother" go to the warm countries when the wind blows cold and shrill?

Have you been wrong all these years? Is your professional study and the investment in the office all a mistake? Can this bricklayer who merely "went to work," who has no professional training, who renders service perhaps less important than yours, enjoy these things now and the almost certain prospect of these other things in the future, while you are shut out?

Are you shut out; or do you merely think you are? Are you shut out or have you never thought intelligently about it and are unknowing whether you are shut out or not? If you are shut out, whose fault is it? If you are now shut out, is the shutting out unavoidable and beyond remedy or is it in you and capable of remedy?

You say that these thoughts possess you, that they come up at all hours, that you look upon the children playing and some inaudible voice says "This is the life," and then seems to ask, "What is the life and for how



What is the life for me and mine, and for how long?

long?" You say these questions are becoming the biggest questions in your life and that they must be answered.

Yes, they are the biggest questions in your life, and it was a great day for you when that chap asked them. And they must be answered by your acts if not by your words. Even if you stop your ears so that they are not heard, if you shut your eyes to your own future and that of your family, if you succeed in again watching the children without hearing that insistent "What is

the life and for how long?" they must be answered. You have been answering them with every act of your life and will continue to until you die. But you can answer them much better if you will answer them deliberately and consciously, as every business man must, than you can if you conceal them and repress them. And the answers will make you and yours happier.

There are a lot of other questions hanging on these that the bricklayer didn't know how to ask. He didn't know how to ask how you can be sure of doing the patient justice, if you don't do yourself justice. He didn't ask how often you render the best service you can, and collect a proper fee. He didn't ask how safe a patient's welfare really is in your hands. He didn't ask whether you are controlled and cowed by the fees common in your community, or whether you get what service is worth. He didn't ask how you fit yourself to render charity service to the needy poor.

Supposing he had asked you some other questions. Suppose he had asked, "Doctor, what are you going to do when you get old?" You would have been compelled to answer, "Work." And you would have fallen in his estimation; just think of that! A professional man falling in the estimation of a member of a trade, because, starting even in life and enjoying greater advantages, he "could not hold up his end."

He asked you some of the biggest questions in life, and it is lucky for you he did, because if he hadn't they

might have gone unrecognized until it was too late for you to answer them with any but sorrowful answers. You should be grateful to him for giving them definite form, because you are yet young enough to make sure of what he described as "the life" for yourself and yours.

And though you may not see it just at first, these questions are quite as important to your patients' welfare (at your hands) as any technical question. Correct answers to them will benefit your patients even more than they will you.

The limits of a single letter are too short to answer these questions because they reach to every phase of those activities by which you gain a living. And so I have asked the bricklayer's questions in slightly different words.

Why do you practise dentistry?

What is your remuneration per hour?

What is "the life" for you and yours when you are old?

And, beginning at the very beginning and setting forth what is known as clearly as I can, I have shown in the following pages how each may work out the answers for himself.

Bill

PART I
PRELIMINARY CONSIDERATIONS

CHAPTER ONE

ECONOMIC CONDITIONS IN PRACTICE

The financial condition of the average dentist in full practice is not such as to attract to the practice of dentistry, men of the calibre who would most advance the welfare of the profession and of humanity. They can do better financially elsewhere.

While exact receipts and expenses cannot be given for many practices and allowances must be made for the possible inaccuracy of some of the reports received, the testimony that the average dental practice is not financially profitable is nearly unanimous.

THE INITIAL INVESTMENT REQUIRED

Reports from several dental colleges covering a term of years indicate that students graduate into practice at an average age of about twenty-five years. Each one who graduated from high school represents an investment of at least \$4,000 in support and general preliminary education, and an investment of at least \$2,500, in time and money, in dental college education. The total investment in education is then \$6,500. At the age of twenty-five his expectation of life is thirty-nine years.*

* American Experience Table of Mortality.

No reports are at hand concerning the average financial resources of dental students at graduation, but acquaintance with some hundreds of them shows that many are in debt, while a few have money enough for opening an office and beginning practice. It might be fair to say that the average young dentist is free from debt at graduation, but must go into debt to establish his office and support himself until he earns his living expenses.

THE FIRST PRACTICAL PROBLEMS

The dentist who undertakes practice for himself faces a number of problems which are distinctly commercial in character and for the intelligent handling of which the average dental college has not instructed him. He must choose a city or town, a part therein, a building and rooms in the building, all of which shall be acceptable and accessible to the class of people whom he desires to serve. Fortunately he is usually endowed with that optimism of young manhood which either does not see difficulties, or is not daunted by them. Yet one who has passed through these experiences and has observed the difficulties and hardships imposed upon many dentists by lack of knowledge as to the best manner of conducting these early activities, cannot help feeling that it would be greatly to the young man's benefit if the colleges would give the student instruction which he could use when he first faces the problem

of earning a living. Certain it is that young graduates without business experience often do just the things which hinder getting an early start, and many make business errors from which they do not recover for years. Many of these errors could be entirely avoided by instruction for an hour a day for one semester of the senior year in college.

The young dentist without commercial experience who can get a position in an office where good business and professional methods are practised is usually much better off, in the end, than he who starts out "on his own."

ONE SOURCE OF PRACTICAL KNOWLEDGE

Fortunately, the dental supply house often comes to the young man's aid, and supplies him with what knowledge it can furnish ready-made. The supply house is usually well posted as to the conditions in the towns it serves, and often suggests locations to young practitioners. It is not unusual for the representative of a house to travel over a city or town with the young man, pointing out routes of street car travel, good buildings and suitable rooms, and advising him as to amount of rent, light, repairs, etc. The supply house is usually well informed as to towns in which the dentists do not thrive, or fees are very low, or the industries supporting the town have long dull seasons, or people are too ignorant or there are too many dentists.

This service is very valuable, but it would be better for the college to teach the young man how to acquire this knowledge himself than to trust to the chance that the graduate will learn it elsewhere.

The supply house is usually compelled to give the dentist a course in intelligent buying and paying. Dentists who take kindly to this course learn much of practical value. Those who do not profit by it suffer financial losses which are often serious, but are usually unrecognized by the loser.

INVESTMENT IN EQUIPMENT

The young man who goes into practice for himself at the age of twenty-five faces the necessity of investing about \$1,000 in furnishings and equipment, in addition to the sums which may be required to put his rooms in order for occupation for his purpose. He is not often able to pay cash for this amount, and assumes monthly obligations of definite sums. In addition, he is compelled to assume obligations for the rent, electricity, etc. Thus he acquires expense before he secures income.

EARLY PERSONAL ACTIVITIES

When he has discharged these undertakings, he enters at once upon a number of others. He is to be his own business getter, service seller, contractor, operator and collector. If he follows the traditional course, he

goes about town and calls upon the other practitioners. He is received differently by different men, depending largely upon how much they fear him. Those who have kept their technic up to the times and have so attended to the business elements of practice that they have all the practice they desire and fear no one, will probably receive him on a fair and friendly basis, and if he impresses them favorably may send him some patients. From such men he will receive help.

The dentists whose technic is *passé* will recognize him as a menace to their none too profitable practices, will be friendly only in a superficial way if at all, and will often misinform him as to habitual fees. Such men he must placate but not consider too seriously.

THE PERIOD OF PRACTICAL EDUCATION

It takes the average young man from eight to ten years to learn where his most serious shortcomings and mistakes have been and to correct them sufficiently to be in full practice. Most of these mistakes have usually been on the business side of practice, either in personal omissions or commissions, or in the selling of his services at unremunerative fees.

It may be urged that ten years is none too long a time in which to train one without business experience to be the head of even a small business. Whether or not this is true, the partial loss of ten years following long and expensive preparation, is very serious to the

young man. Sometimes the mistakes are not corrected in ten years, but continue through life. When a knowledge of the cost of education, equipment, and the various operations is common in the profession, many of these errors will be avoided, and young men entering practice will sustain much less serious losses.

AVERAGE FINANCIAL CONDITION

Reports from a number of sources indicate that when the average dentist reaches full practice, his gross practice will be about \$2,500 per year. The statistics which follow list several \$2,500 practices, but they are all located in small towns, where overhead charges are very low. These statistics show that it costs the dentist with a \$2,500 practice, \$790 per year to conduct this practice, leaving him a net income of \$1,710. There is reason to believe that these reports underestimate the costs of practice and that correct reports would carry these costs up to at least \$1,000 in most offices and to \$1,250 in many, leaving an income of not more than \$1,500 annually. On this sum he is to live and dress as becomes a professional man, satisfy the requirements of a mind which has received considerable education, support a family, have leisure enough to attend dental meetings and do some studying, enjoy enough recreation to keep body and mind in health and lay aside sufficient money to support him when his physical resources no longer enable him to earn this much. It is not too

much to say that at the present cost of living, these things cannot be done properly on \$1,500 per year.

THE GREAT EARNING PERIOD

But the dentist does not have an assurance of even this much income for life. He will be fortunate if he has twenty years of full physical vigor after he reaches full practice, and even with good health, age will take its toll soon after he is fifty-five. Before that age, any prolonged absence from the office because of sickness or of accident, will decrease his income more than it does his expenses. If he lives to the age of sixty he will still have fourteen years' expectation of life. By this time his practice will gradually diminish, and he may be forced to call upon his savings to support him. Alas for him if there are no savings to call upon.

IMPROVING ECONOMIC CONDITIONS

Fortunately, the causes of such an evil financial state are now better known than formerly, and still more fortunately they may be greatly mended by any who will take the necessary trouble. The causes lie mainly in failure to recognize and give proper place to the business problems which form so large a part of every dental practice. When these are understood and common sense solutions reached, the face of conditions changes in a remarkable manner. No miracles are wrought, and the attention and toil are still as necessary as before,

but they achieve in much larger degree the end for which they were undertaken, and the cash return is almost invariably greatly increased, while the quality of service is improved. Hundreds of dentists have applied business principles to their practices with most gratifying results to them and to their patients.

When dentists learn to know what each operation costs them, so that they can name advance fees which will be fair to the patients and themselves, and when they learn to lay the possibilities of restorations before patients as a salesman lays his samples before his prospective customer, the financial condition of the average dentist will be much more satisfactory than it is at present.

CHAPTER TWO

THE ECONOMIC OBJECT OF PRACTICE

Men practise dentistry to earn a living and a competency. This object has been so confused with the manner of such earning that it has often been lost sight of and violent discussions have raged about the methods employed, and left the principle untouched.

WHY MEN CHOOSE DENTISTRY AS A LIFEWORK

Inquiries made of dentists under circumstances which permitted them to be frank, show that most of them took up dentistry because it appeared to offer an agreeable means of earning money. Practically all entered dental college with the well defined purpose of earning a living, and with the idea that dentistry was only a means to that end.

IDEAS MODIFIED IN COLLEGE

Before they were through college, they heard the object for which they took up dentistry subordinated to so many other matters that their view of their purpose was altered and instead of being a means of earning money, dentistry became a means of service with them as servants and the patients as beneficiaries. In most

dental colleges no one talked to them about earning a living by practice; no instructions what to do or not to do formed part of the curriculum. They entered practice well instructed as to their duties to patients and to other dentists, but ignorant of their duties toward themselves and without any well defined idea as to how the financial benefits from practice were to be derived. It is no wonder, under these conditions, that there were frequently no benefits worth mentioning.

HOW THE LIVING IS TO BE EARNED

Probably the correct viewpoint lies somewhere between the young man's undefined idea of earning large sums of money through the practice of dentistry, and the college idea of service without a well defined reward. Money is to be earned by the sale of skillful service, but that service directly affects the health and welfare of the patient and should be undertaken only by one properly trained and equipped and with the understanding that the patient commits his welfare, up to a certain point, into the dentist's hands and is compelled to rely on the dentist's skill and integrity.

MUTUAL PROFITS IN FULL VALUES

Until recently the buyer of merchandise was his own only protection against being cheated, the seller being free to do his worst. It is now known to be a poor bargain which does not benefit both parties, and wise mer-

chants guarantee that the buyer shall receive full value. This is a reflection of the dentist's proper attitude; he should do justice to the patient and himself and do nothing to injure other dentists.

THE PLACE OF THE CODE OF ETHICS

There was a day in the history of the practice of dentistry when the methods of many dentists were such as to mislead the public and to threaten the degradation of the entire profession. Promises incapable of fulfillment were often made, methods were misrepresented or cloaked in misleading secrecy, and the welfare of the patient often received but slight consideration.

The better men in the profession rebelled at such practices on the part of others, and dental colleges sprang up to put an end to secrecy in methods, and a Code of Ethics* was established which bound them to refrain from such practices as seemed likely to mislead the public or degrade dentistry from the high plane on which they felt it should stand. Dentists who subscribe to this Code are often spoken of as "ethical dentists," and those who do not subscribe to it are often called "unethical."

UNSOUND ETHICS

Truth carried to an extreme may become an untruth, and some of the speakers and writers who have grown

* The Code of Ethics is reprinted in the back of this volume.

up within the pale of the Code have carried some of its principles to nonsensical extremes which have been very harmful to dentists who have been misled thereby, and to the profession as a whole.

Perhaps the most striking example is the statement which used to be frequently heard in dental meetings, that the dentist should devote his whole attention to the professional side of each operation, with no thought of the amount of its fee or the manner of its payment, and that the fee for any operation should be whatever the patient could pay. In other words, the operation was The Thing and the fee an incident.

Many practitioners followed such exaggerated and unsound teachings, with the result that they were soon out of money. Some took to drink. Some quit dentistry for vocations where the conditions of earning a living were less hazy and confusing. Some awoke to the importance of good business methods and placed operations and fees in their right relations. Some secured positions in offices where good business methods were followed, and others forswore ethical dentistry and all its works, and joined the ranks of the unethical.

RESPONSIBILITY TO PATIENTS

The moment the dentist offers to sell to a patient service based on his superior knowledge and skill, he assumes a responsibility **to exercise that knowledge and skill in the manner agreed upon in the contract**

between them. This responsibility is all the more binding because the patient cannot judge well of conditions or remedies and cannot usually detect any unskilled or unfaithful service until harm has been suffered.

The statement or implication that the dentist's responsibility to patients is unlimited in money or time is nonsensical, is out of keeping with all the other activities of life, and is opposed to sound ethics.

THE LIMITS OF RESPONSIBILITY

The law holds a dentist responsible for knowing as much as the average dentist of his time and locality, and for exercising ordinary skill and care, but the conscientious dentist will hold himself responsible for far more than that.

He will recognize his duty to inform patients as to whatever is necessary to the welfare of the mouth and for the proper performance of the functions of speech and mastication.

He will describe the several forms of restoration possible in any case, so that the patient may form an idea of their value and relative economy. Thus, a molar may be restored by an amalgam filling, a gold inlay, a swaged crown or a crown with a carved and cast top. The fees will necessarily differ for the different operations.

The dentist is under no obligations to quote to regular patients lower fees than will permit him to perform

an operation well and earn the remuneration which the community signifies by its patronage that it is willing to pay him.

When a patient accepts an estimate, the dentist is bound to perform the work in the manner agreed upon, accepting any losses which may result from his errors in estimating.

If patients cannot pay the fees customary with the dentist, he may refer them to practitioners whose fees are lower, or alter the form of the work. But any lowering in the quality of the work should be made clear to the patient. Thus, it averages to cost a dentist with a \$4,000 practice, who does all his own work, \$12.20 to insert a finely carved and contoured gold inlay in a posterior tooth, because it requires $2\frac{3}{4}$ hours of time, worth \$11.00, and \$1.20 worth of gold. If the patient can pay only \$10.00 and the dentist wishes to make the inlay, he should explain to the patient that while the most perfectly made inlay will require 165 minutes, he can devote only 130 minutes to the inlay for that sum, but will do the best he can in that time. Then no one is deceived.

Inasmuch as the dentist has received his education partly at the expense of the whole community, and is the recipient of the fruits of the labors of others who have toiled in similar or allied lines, he has certain duties toward the community, such as that of relieving pain regardless of the fee, of serving a reasonable

number of charity patients, and of serving in public emergencies without expectation of reward.

THE MEDICAL PROFESSION'S VIEW

Those who would have the dentist serve without profit often refer to the habit of physicians in serving all who come. But this practice is growing less common, and physicians and surgeons who come at all into contact with business methods quickly change their habits. An interesting illustration of this occurred to a dentist who was very ill and was referred to a Roentgenologist of the highest standing, connected with a great hospital, to have a series of X-ray photographs made in the course of a diagnosis of great importance to the sufferer.

The doctor's first question was:

"How much can you afford to spend for this work?"

"What difference does that make?" asked the patient.

"It determines how far I can go," said he. "If you can spend only \$50, I will do what I can for that, and report. If you can spend \$75, I will stop there. It may cost \$150 to complete the diagnosis."

"How is that?"

"Each exposure costs the hospital a certain sum, and when I reach the sum a person can spend, I am compelled to stop, except in the case of charity patients."

It wasn't necessary to ask this man, who stands very high in his profession, his opinion of his responsibility

to this case, which meant life or death to the sick man. His view was the commonsense one, that until the dentist became a charity patient, his responsibility was limited to doing well what the dentist could pay for.

CHAPTER THREE

THE PROFESSIONAL AND BUSINESS ASPECTS OF PRACTICE

The activities connected with the establishment and conduct of a dental practice follow one another so naturally that all have been thought to be of one nature and all have been conducted in the same spirit. There are, however, two quite distinct divisions and the whole practice greatly benefits by a separation of these in the dentist's mind. A distinction between the divisions makes it possible to correctly place responsibility for a number of things for which responsibility has usually been wrongly placed. The following definitions of the divisions of practice are therefore offered.

THE PROFESSIONAL PART

The professional part of practice comprises the recognition of pathological conditions, the selection of methods and appliances suitable to their correction and the manipulations necessary to restoration of function. It comprises all studies and experiments which seek to increase professional knowledge or skill. The professional aspect of practice comes into evidence when a

patient presents for service and terminates with the end of the technical activities.

THE BUSINESS PART

The business part of practice comprises the selection of dentistry as a lifework for profit, the payment for instruction, the selection, equipment and management of an office, the determination of methods to be followed for securing and increasing patronage and profits, the reception of patients, the determination of fees, the decision as to what kind and quality of service can be rendered for the fee, and the keeping of records of charges against patients and credits for payment.

The activities of the business part of practice are more numerous and constant than those of the professional part. They begin with the payment of the student's first fee for dental instruction, and end only with the close of the last transaction by which the dentist seeks to earn money by the practice of dentistry.

AN ILLUSTRATION

In the case of a particular patient, the operation of these factors might be illustrated as follows: All preparations of the office and in the office which permit the patient to be received and the work to be done are business factors. The decision as to which teeth need attention, the causes of the defects, the consequences of neglect, the methods possible to employ for

restoration, the employment of those methods and the completion of the restoration, are professional. The amount of the fee and all records connected with costs, charges and payments are business activities.

CONFUSION OF NOTIONS

A perception of the differences between the professional and business parts of practice has been clouded by writings and speeches which have sought to extend the character of the professional activities to the business activities. Such writings have confused the cost of service with its value, and the determination of the amount of the fee by the value of the service rather than by its cost.

MENTAL AND FINANCIAL REWARDS

These writings and speeches have confused also the mental and financial rewards from practice. The work to which the dentist with the professional spirit * gives the greater part of his life, and from which he will derive his greatest rewards, is professional in character, and his sweetest rewards will doubtless be mental, but that should not deter him from seeing that the business elements of practice are conducted in accord-

* The professional spirit may be described as that attitude of mind which subordinates the financial reward for service to the pleasure in rendering service. This spirit, uncontrolled, renders benefits to many, but is often very unjust to direct dependents, such as wives or children, since it does not make adequate financial provision for their support. This spirit, tempered by a recognition of the necessity for securing financial remuneration, confers quite as great benefits on the public and renders greater justice to those for whose welfare the worker is directly responsible.

ance with sound economics and that his labors are suitably rewarded in cash.

For such a man, the professional part of practice will be the capstone of his lifework, but capstones endure longer when mounted on solid foundations, and due attention to the business elements of practice furnishes such a foundation.

CONDUCTING BUSINESS ACTIVITIES

The dentist's pleasure in gratifying his professional spirit and in his growth in knowledge and skill, should not mislead him into extending that spirit to cover activities which are not professional in character. The earning of the money for the payment of the rent, for instance, is not a professional activity and cannot be governed by the imaginative spirit which pictures possible achievements in tooth restoration. The landlord needs the rent because the building costs him a certain sum annually and his capital is entitled to its reward. He needs it in cash by a specified date, that he may meet his obligations, and the dentist must have this sum by this date to keep his business credit good.

SECURING BUSINESS ADVICE

The dentist who would conduct his practice well must accustom himself to two lines of thought, one professional and the other commercial. Along professional lines he may develop his knowledge, imagination and

skill as far as circumstances warrant. On business lines, he needs only plain commonsense and a knowledge of what things cost him, and of the importance of collecting what is due him. If he finds difficulty in developing this line of thought, he will do well to adopt the practice he expects others to adopt toward him—that is, when in need, consult an expert. In nearly every town and village there is some bookkeeper or accountant with all the knowledge the dentist needs, who in a few days can establish a proper system of records, and by a few hours of work a month can keep it up to date.

The dentist who hesitates to hire this assistance may be assured that it will be more profitable than any other investment of equal amount he can make, and that any reasonable sacrifices are justified to make it possible. It will show him, from his own books, what his life work is producing in cash, and what his financial prospects are. Very small expenditures will install and maintain an efficient system. Very often accountants are in need of dental service for which they would be glad to pay in work. The dentist who needs bookkeeping assistance but hesitates to spend the money, may find it easy to exchange work with such a person. In some communities several dentists are reported to have joined in hiring such assistance.

DISTINCT BENEFITS

Many dentists who have separated the business and

professional parts of practice and have learned to give proper attention to each, have greatly benefited themselves and their patients. They know that the responsibility for developing profits in practice rests on the business part. They are able to show patients that the fee paid determines what can be done, and find that patients see the point much more readily than the dentists themselves saw it. They find also that intelligent patients willingly increase fees to that point which will prove most economical to them in the end. The dentist is then free to do his best within the limits the patient has set. The quality of work is often greatly improved. Thus everybody benefits.

In other words, these dentists have returned to their first conception of the practice of dentistry as a means of earning a living, but that conception has been enlarged and dignified and glorified by the development of professional knowledge and skill and the perception of how to render patients service of great benefit to their health, comfort, appearance, and efficiency.

CHAPTER FOUR

THE VALUE AND COST OF DENTAL SERVICES

Our unbusinesslike habits of thought often lead us to confuse the value of our services with their cost. It is not uncommon for a young practitioner to ask an older one how much he should charge for an operation and to receive some such reply as "The value of such service is beyond price and no fee you can get for it is too high," which may be true but does not instruct the young man.

WHAT ESTABLISHES VALUE

Value is the measure of the desirability or worth of a thing.

Service is often worth far more to the recipient than it costs another to render it. The person in pain may often be relieved by a very simple form of service at the hands of the physician, surgeon or dentist and at slight cost to him who serves. The value of the relief may be great.

The value of anything is quite independent of its cost. To a hungry man a meal is worth far more than its market price, since it is evident that the indefinite postponement of the humblest meal would work him

serious ill. The warmth of a fire is often worth far more than the price of the fuel.

WHAT ESTABLISHES COST

The cost of service to him who renders it is determined by the expense involved in preparing to render it, and the value of his time at the price the community regularly pays him who serves. Thus the cost of a house call by a physician is not measured by his car-fare or carriage hire for that call and the prescription he writes or medicine he leaves. That cost includes a portion of the expense for his education, the maintenance of his office, including books, instruments, etc., the expense of his carriage or automobile, and the value of his time.

In the commercial world, the final cost of an article is the sum of the expenses for material and labor, including that form of payment for labor called "profit."

THE RELATION OF VALUE AND PRICE

It is not usual to determine the selling price of an article or of service by its value, since that is too indefinite, varies too greatly with different people or different circumstances, and might often cause the price to be prohibitive. That was the policy before the days of fixed prices based on cost of production. In those days everybody "dickered" for everything, and the most skillful at "dickering" secured the lowest prices. In

America, the "one price to all" policy has very largely replaced the variable price. The prices are based on the cost of producing and selling, with fair profits included.

THE RELATION OF VALUE TO FEES

The old dentist who states that the value of dental service is beyond price, tells the truth concerning the **value** of such service. For the child whose narrow arch and nares and crooked septum are restored to normal form by orthodontia, the person whose teeth and soft tissues are kept in health by prophylaxis, and those whose teeth are restored to functioning power or replaced so as to function, the value of dental services is so great that it cannot be accurately estimated, nor often adequately paid for. And for patients of sufficient wealth so that high fees are not oppressive, the value may form part of the basis for fees.

FEES BASED ON COSTS

Few dentists have opportunity to serve many wealthy patients and the greater number of patrons of dental offices are people of such moderate means that a high fee may easily be serious or prohibitive. In order that he may serve a sufficient number of people, the dentist must find some lower basis for fees than the value of his services and at the same time should be sure that the fees are such as will not leave him in old age ex-

hausted in physical resources and in purse. That basis for fees can be found only in the cost to him of any form of service, including proper remuneration for his labor and his capital.

CHANGES IN COSTS

The cost of any given dental operation does not remain constant with any given dentist, but changes from year to year. The change is brought about in slight degree by the increased office expense, in higher rents and more expensive equipment, necessitating the laying aside of larger sums for depreciation, etc.

A much greater change in costs is occasioned by improved methods in performing operations, requiring more time, even working at the same speed. It takes longer to make a finely contoured and carved gold crown than it did to make the "tin can" crowns common a few years ago. It costs more to insert a properly contoured and carved approximal amalgam filling than it did the straight-sided, flat-topped filling of the past. It costs more, in time, to articulate artificial dentures than it does to occlude them without relation to the jaw movements.

A still greater change in costs is occasioned by the increased value of the dentist's time as he wins the approval of his community and increased patronage. If a dentist has a practice of \$2,000 gross, annually, his office expense will probably be about \$0.85 per

income hour, exclusive of precious metals, and the value of his time is about \$0.95 per income hour. Thus an operation occupying one hour costs him \$1.80, exclusive of precious metals. But if that dentist had a \$3,500 gross annual practice, his office expense would be about \$1.56 per hour, while his time would be worth about \$1.94 per income hour, so that the cost of that operation to him would be \$3.50. Thus the cost of an operation, to the dentist, increases with the increase of the practice.

COSTS AS MINIMUM FEES

The cost of the operation, including the remuneration, need not establish the maximum fee for any operation. In the early days of practice, fees thus established may be the maximum, but as the dentist increases in resources and skill and patrons become more numerous, he may need to work beyond his strength to serve all at his minimum fees, or to advance his fees and decrease the number of patrons. The advanced fees will then represent a compromise between costs and values, with the costs as a basis.

CHAPTER FIVE

OFFICE HOURS

The hours the dentist spends at his office for the purpose of rendering service may properly be called office hours. It is believed that in a well conducted practice the best results are obtained by the dentist who spends about 2,000 office hours per year. These may be distributed as follows:

365	days
52	Sundays off
<hr/>	
313	
6	holidays—New Year's, Memorial Day, July 4th, Labor Day, Thanksgiving, and Christmas
<hr/>	
307	
28	days' vacation
<hr/>	
279	
21	days for dental meetings throughout the year
<hr/>	
258	days or 37 weeks per year
9	less $\frac{1}{2}$ day a week for half these weeks
<hr/>	
249	working days
8	office hours per day
<hr/>	
1,992	office hours per year *

NO PROFIT IN EXTRA HOURS

The dentist who spends much more than 2,000 office hours per year, probably does more harm than good to

* See Chapter Six for Income Hours.

his body, his mind, his purse and his patients. This is usually true no matter how busy the extra hours may be or how much money he may receive during them.

It will be noted that the above table makes no provision for Sunday work. This is because no one should habitually work seven days a week, and if circumstances require him to work on Sundays, another day during the week should be taken for recreation. If he works some evenings, he should close the office certain afternoons.

PHYSICAL CONSIDERATIONS

The dentist needs to take good care of his body, because most of his capital has been invested in it, and the character of work is cramping and confining. It has been authoritatively stated that dentists average to live fifteen years less than physicians, probably because of the indoor work and cramped postures.

The average dentist reaches full practice about the age of thirty-five, usually not having saved much money except that invested in the office and home. He may expect to live thirty-two years if he will give his body plenty of fresh air, frequent short rests, and occasional longer ones for real recuperation. The older he becomes, the more important is the rest, because if he lives to be fifty-five years old, he has still sixteen years anticipation of life.

Dr. Louis Jack, after a lifetime spent in practice and observation of dentists, said that a dentist would do more, working ten months a year than by working more months, because he would be able to work more years.

The dentist who follows a day of operating with an evening of laboratory work, exhausts the vitality he needs as defence against illness in middle life and debility in old age.

MENTAL CONSIDERATIONS

Continuous application of the mind to any one form of work hinders development more than it helps. A striking example of this is found in judging colors, where the vision becomes untrue after a few seconds of looking.

It might be thought that the more continuously the dentist studies teeth, the more he will know about them. But after a time fatigue dulls the mind so that diagnosis is not accurate, the imagination does not picture the possibilities in restoration, the eyes lose power to focus or their reserve strength is drawn upon, and the nervous system no longer guides the hand well, or does so at too great expense of strength.

Dentistry contemplates much more than a knowledge of teeth.

The teeth are only parts of an extensive, highly organized machine, and the dentist needs to know mechanics, anatomy, physiology, histology, bacteri-

ology, pathology and psychology, as well as parts of other sciences. If his mind is fresh and receptive, he can gain knowledge from many sources. If it is deadened by continued application in one line, it will develop only narrowly or not at all.

FINANCIAL CONSIDERATIONS

It might seem that the dentist should not leave the office as long as money is being earned. If he can work all day for paying patients at fair fees, and spend the evening making inlays to be set on the morrow, it is evident that he will receive more money than if he leaves the office at five o'clock and spends time and perhaps money in recreation.

Observation over any considerable period shows that what one gains in the evening is lost the next day, and usually a little more is lost with it. If one week or month is so crowded with work as to exhaust the strength, the vital forces are not equal to the opportunities in the next week or month. The dentist is lucky also if he does not suffer ill health during his period of fatigue and perhaps lose much time by it.

Just as these words are written a dental friend is returning to his office after ten days of absence. Under the spur of unusual demand he worked days and evenings until tired out. He caught cold in this condition and was confined to the house for a week. He is now returning to the office, in reduced strength. His losses

during the absence have been much greater than his gains by the extra work.

In the long run, it will be found better to limit the office hours. If patients are too numerous to be served in the limited hours, an advance in fees is indicated, which will increase profits without increasing labor.

A five o'clock closing hour, followed by outdoor exercise is better for the purse than a 10 P. M. closing time with \$10 earned.

SERVICE SELLING

The dentist's greatest opportunities for profit making are those involved in selling his services to prospective patients. While the subject of service selling will be discussed later, it may be said here that the power to carry conviction is dependent in no small degree upon the physical condition of the dentist. If he is in good condition, he radiates confidence, vision and power. If he is in poor physical condition, his words will not have the weight of the same words from a well conditioned man. The dentist will make more money by keeping himself in good service selling condition than by working extra hours.

A skillful poker player says that poker is a game of people far more than of cards. He studies his cards a little, but his opponents a great deal. In the same way the dentist who wishes to sell to patients service that is for their own good, will profit by studying dentistry,

but far more by studying his patients, their attitudes of mind, the avenues of thought by which they can be reached, the methods of inspiring conviction and turning conviction into action, etc. He can only do this when he is in sufficiently good physical condition so that his mind is fresh and receptive and his insight keen.

THE PERSONAL EQUATION

The fact that the patient cannot judge well as to work in his own mouth, but relies on his confidence in the dentist, makes the personal relation between dentist and patient much closer than it is in commercial lines. Many patients are nervous and fearful, or are overworked or overplayed and lack the necessary nerve control to withstand the fatigue or pain incident to the work. In all such relations, the nervous strength of the dentist is heavily drawn upon, and by the end of the day or week is often nearly exhausted.

Patients nowadays are quick to sense any lack of condition on the part of the dentist. They feel that he is not in condition to render them his best service. He may be tired and irritable and that may irritate them. The well-paying patients are by far the quickest to note and resent any such condition. They are willing to pay well, but they want the best that can be done for them. They prefer the dentist who will charge them well, but can serve well.

Mrs. M was of fine physique, but her teeth were very sensitive and she was neurasthenic. She patronized Dr. A, who was very busy, who worked very hard, and who became more and more irritable as the years of hard work exhausted his nervous strength. Whenever she presented for service, the clash between their worn-out nervous systems left both nearly exhausted.

Once, when in need, she patronized Dr. B, who was of equal skill and prominence, but who worked fewer hours and less continuously. A friend afterward asked her experience.

"Well," said she, "I don't know as Dr. B is any better dentist, but he handled me much better, and I came home not feeling especially tired or nervous and went to H——'s dinner that night. He isn't nearly as nervous as Dr. A, and kept my nerves quiet, because his were quiet."

"Did he hurt you?"

"Yes. There isn't much difference between them in that respect. But the same hurt didn't hurt so much. He told me quietly it would hurt for a minute but was necessary, and as soon as the real pain was over, my nerves settled right back. I shall certainly not go back to Dr. A until he gets over being so nervous."

Thus in person, purse and reputation, a reasonable number of office hours per year for many years is more profitable than an excessive number for a few years and a smaller number or decreased vitality thereafter.

CHAPTER SIX

INCOME HOURS

The hours the dentist works at his regular fees may be called income hours. The hours he works at reduced fees are charity hours to the amount of the reduction. The hours spent in rendering new service, without charge, and hours spent in making good guarantees, in work on books, etc., are lost hours.

If the office hours number 2,000 per year, the income hours will not usually number more than 1,000 per year, or four hours for each of about 250 days. Even under favorable conditions they will rarely exceed 1,200 in one year. Unfortunately, records of the income hours throughout a whole year are available in only three practices. By night and Sunday work which affected his health, one dentist recorded 1,250 income hours in one year but averaged only 1,086 for each of three years. Dr. Holroyd averages 958 income hours per year and Dr. Van Houten reports 865 income hours out of 1,915 office hours in one year.

TWENTY-FIVE RECORDS

Twenty-five dentists, in various parts of the country,

kept accurate records of office and income hours for the months of December, January and February. Several of them thought their reports not quite fair because they were very busy during this period. They reported an aggregate of 10,616 office hours, with 6,527 income hours, or 61.4 per cent. of their office hours as income hours. During other seasons they could not average such a high percentage of income hours. Dr. Kirby reports 544 income hours out of 1,120 office hours in what he thought was a busy six months.

THINGS THAT INTERFERE

There are several reasons why the income hours are fewer than the office hours. In very few offices is every office hour throughout the year taken up by patients. Even in busy, well regulated offices, some time is lost in receiving and dismissing patients, in making appointments, in broken appointments, in repairs for which a charge cannot be made, in telephone calls or visits by those who will talk only to "the doctor," in explaining about the service to be rendered, in charity work, and in other ways.

AN ANALYSIS OF A DENTIST'S TIME

Credit is due to Dr. M. E. Merker for the following careful analysis of time during three months:

Working days, 80.

Total office hours, 707; daily average, 8:48.*

* 8:48 is printed to indicate 8 hours 48 minutes.

Total income hours, 416:37, divided as follows: Chair time, 317:45; Laboratory time, 76:45; Discussion, 22; daily average, 5:11.

Unproductive time, divided in the following manner: Lunch, discussion, repairs to equipment, work on books, resting and attendance on a clinic, 129:30, or an average of 1:35 per day.

Time lost in doing work over, charity work, etc., 161 hours, or an average of 2:05 per day.

It will be seen in this report that the income hours were 5:11 per day and the non-productive hours 3:40.

THE IMPORTANCE OF THE INCOME HOURS

The income hours are the earning hours and must produce the money to defray the cash expenses of the office and provide the dentist's remuneration. The dentist needs to know his expense per working hour or minute that he may know how much he must earn in each working hour. Only by knowing the number of income hours per year can the dentist know what sum per working hour he must earn.

A large proportion of all dental service is rendered on a contract basis, that is, the fee is quoted before the work is commenced, and often before all the elements or conditions are known to the dentist. Only by knowing his costs per working hour and how long different operations take him, on the average, can he quote advance fees which are fair to him and the patient. A knowledge of the number of income hours thus underlies a knowledge of fees.

The object of good management in a dental office is

to first make sure each income hour earns at least enough to defray expenses and afford remuneration and then to increase the number of income hours in the 2,000 office hours. With this in mind, the dentist is guided toward intelligent improvements in office arrangement or management, and away from what will prove unprofitable or unimportant.

RECORDING INCOME HOURS

Every dentist should carefully record the number of his income hours for at least a year and preferably every year, in order that he may know how many hours actually produce his income.

Dentists who have not kept record of their own income hours often form greatly exaggerated estimates of the amount of time they employ profitably, and consequently mistaken ideas as to what fees are profitable. During one of Dr. Gysi's classes in New York, this subject came up in quiz. One dentist was very positive about conditions in his own practice.

"I know," said he, "that I work for paying patients at least eight hours a day, six days a week."

"Don't you lose any time between patients?" he was asked.

"Oh, yes, but only a few minutes. I know most of my patients very well and have to talk a little with them."

"How much time is lost in this way?"

"Not over five minutes between each two patients."

"Have you any other interruptions?"

"Oh, yes; occasionally some one comes in and has to be seen or I answer the 'phone."

"Are you never out of the office in business hours?"

"A little. I have the best garden in town and I like to work in it occasionally."

"How much do you need to earn to pay your expenses and suitable remuneration?"

"I figure my expenses at \$1,200 a year, or 60 cents for each of 2,000 income hours, and my salary at \$3,000 a year, or \$1.50 per hour."

"Did you earn \$3,000 last year over your expenses?"

"I guess I must have, but somehow I don't seem to have it. Living must cost more than I think."

He was attacked so heavily from all sides that he agreed to keep a record of his income hours for the next six months. Quite a while afterward he came into the writer's office looking happy and prosperous, and said:

"Say, I was mistaken about that 2,000 income hours. When I started keeping an accurate account, I nearly had heart disease to see how much time I lost, so I reorganized the office and am doing better."

"How many income hours did you have?"

"About 900. Now I've got it up to pretty nearly 1,100. I've found out where that \$3,000 I earned went. I didn't earn it; not much more than half of it. I got about \$2.00 per hour for about 900 hours."

“What did you do?”

“Simplest thing in the world. Divided \$4,200 by 1,000 income hours, put my fees on a basis of \$4 an hour, talked myself pretty nearly to death making patients see it, lost quite a few, converted the others, and now get fees that I know are profitable.”

There are several ways of recording the number of income hours, one of which is to have the secretary record the time each patient takes the chair and the time she leaves, at the same time the charge against the patient is recorded. The sum of the times for which a charge is made will be the sum of the income hours. Another way is to make out a slip for each operation, and record the commencing and finishing times by means of a time stamp or hand notations.

There are several devices for timing operations. An ordinary time clock may be purchased and an Individual Chair Record stamped when work is begun, and again when work is finished. A long curved hand may be attached to the centre of the back case of an Ingersoll watch with its point reaching around to the figures on the face. The watch is left running, and the long pointer is set at the time when work begins. The elapsed time can then be noted.

Dr. Thomas, London, Ontario, employs a Lawson football timer. It may be started and stopped without attracting the patient's attention.

CHAPTER SEVEN

THE ELEMENTS OF COST

The elements of cost of any dental operation to the dentist are the office expense for the time involved, his remuneration and the cost of the precious metals or teeth used. The lowest fee for any operation which will be profitable, may be learned by adding the office expense and dentist's remuneration per income hour, multiplying the sum by the hours or minutes occupied in the operation, and adding the cost of any precious metals or teeth used. This formula may be expressed as follows:

Hourly office expense { plus remuneration }	Multiplied by { hours required }	plus	{ Teeth and precious metals }
--	-------------------------------------	------	----------------------------------

Illustration: Dr. A has a practice of \$4,000 annual gross receipts. A mesio-occlusal inlay requires 2 hours of his time and \$1.50 worth of gold. What did it cost him? His office expense, exclusive of precious metals is \$1.50 per income hour, and his remuneration, per income hour, is \$2.05.

$$\$1.50 + \$2.05 = \$3.55 \times 2 = \$7.10 + \$1.50 = \$8.60 \text{ cost of inlay}$$

THE OFFICE EXPENSE

This may be best determined without including the expenditures for precious metals. It is properly obtained by adding together the expenditures for "Over-

head Expense," "Laboratory Bills," "Supplies, except precious metals," and "Remuneration."

All expenditures for the conduct of the practice should be carefully recorded under these or other satisfactory headings, and the totals obtained by the week or month and by the year. In making these records, the "Estimating Office Expense" form, shown in Chapter Eight, may be found helpful.

THE OVERHEAD EXPENSE

As shown in Chapter Eight, the overhead expense includes expenditures for Depreciation, Refunding, Rent, Light, Heat, 'Phone, Laundry, Assistants, and other expenses which are distributed over the month or year. Other items than those shown may occur in many practices.

THE PRECIOUS METALS BILLS

The expenditures for precious metals should not enter into the computation of office expenses because precious metals and teeth should be charged directly to patients for whom they are used.

THE SUPPLY BILLS

The expenditures for all supplies, except precious metals and teeth, should enter into the computation of the office expense and be charged against the income hours.

The term "Laboratory Bills" is intended to cover expenditures for service by commercial laboratories. This term does not favor exact distribution of the items, because such bills are usually partly for materials, partly for precious metals and partly for labor.

THE INVENTORY

The first steps in such an accounting are usually to determine the amount of the investment in furnishings and equipment and the depreciation to which it is subject.

The dentist's investment in knowledge and skill is greater than that in equipment. This investment begins with the sums expended for the dental college education and includes also a value for the time sacrificed in acquiring that education. It is believed that the sum of \$1,000 represents a conservative cash expenditure in dental college, and that the three years of time are worth at least \$1,500. The sum of the two items, \$2,500, has been used in the reports of practices which follow.

The reception room, operating room and laboratory, properly equipped, usually represent a greater investment of money than is appreciated until a careful inventory is taken. The inventory should include all furniture, instruments, appliances, tools and general supplies.

Dentists who wish to begin accounting before making

a careful inventory will do well to accept \$4,000 as the average sum invested in education and office equipment. In many offices this will be greatly exceeded.

The Inventory should be made out in detail and used as a basis for fire insurance for the office. A duplicate copy, together with the invoices for the more important items, should be kept in a safe place, away from the office, so that if the office is destroyed by fire it can be submitted to the insurance authorities. This will often greatly facilitate the settlement by preventing disputes.

DEPRECIATION

In taking this inventory the first time, the dentist should set down the value of everything when new, in order that he may obtain the amount of his investment in the office, upon which to estimate the sum which must be set aside annually for depreciation of furniture and equipment. But he should not delude himself by carrying the inventory upon his books in any such figures. In fact, he will do well to cut deeply into the values of the items, and underestimate them rather than estimate them too highly. Some dentists claim that equipment depreciates 50 per cent. in value the first twelve months, and 15 per cent. yearly thereafter, so that in five years it would be entirely charged off. This may be true, but it will be found rather severe doctrine for the dentist who first commences an accounting, and who desires to put his accounts in shape. It

may be found well to inventory annually, after the first year, at the figures a dealer will pay in cash for the articles. This sum will often be small, but will prevent uncomfortable surprises if it becomes necessary to dispose of the office.

But the proper provision for depreciation requires something more than entering figures in an inventory. Certain replacements or repairs will be necessary annually, and the money for them should be provided for by entering Depreciation as one of the overhead office expenses.

The amount necessary, annually, may vary under different conditions, but it is believed that 10 per cent. of the first investment in furniture and equipment is the smallest sum which will average to suffice.

In practices where the gross receipts barely support the dentist, no provision for depreciation can be made; and in practices where the dentist does not care to adopt business-like procedure, no provision will be effectual.

In the bookkeeping system described in Chapter Nineteen, it is assumed that the item of Depreciation entered into the determination of fees and that the money it requires has been collected as part of the fees. The actual expenditures for renewals and repairs are charged to the Overhead Expense account, and the Depreciation balance unexpended in any year should be permitted to accumulate in the Cash account of the practice.

It will be necessary for the dentist to form his own personal decision as to what expenditures shall be made from the fund set aside for depreciation. It is suggested that repairs to the equipment and to the furniture should be paid from this fund, as well as the amounts necessary for the replacement of any equipment on hand. Replacements of instruments used up in work, such as stones, burs and excavators, certain laboratory tools, etc., should not be charged to this fund, but form part of the supply bills.

REFUNDING THE INVESTMENT

There should next be set aside a sum annually to refund the entire investment, that is, to enable the dentist to recover it. If the dentist kept store, he would have, at the end of any period, a certain amount of merchandise which could be inventoried and sold to any who desired to purchase the store. But the dentist's accumulation is in knowledge and skill, and these he cannot sell to another. These are the great assets in the office and when he is gone and they are lacking, the office has but small sale value.

It is but fair, then, that he should take other steps to recover his investment, and one practicable method is to make a charge equal to 5 per cent. of the entire investment against the practice annually, to take this sum out of the practice, and invest it for accumulation, so that at the end of twenty years he will have

received back the sum he invested. This sum is listed in the specimen chart as "Refunding Investment."

The justification for beginning the record of the dentist's investment with the beginning of his dental college life is found in the fact that his life then turned aside from its line of general preparation and entered upon the period of special preparation for the practice of dentistry. Until he entered dental college his preparation was of a general character. Upon entering dental college work, he removed himself from the line of preparation for any other trade or profession and began preparations to earn his living by rendering dental service. This investment of time and money was essential to successful dental practice.

The average sum required for refunding the investment, as shown by the practices here listed, is \$175. Probably this sum cannot be laid aside by the dentist during the building of his practice, but by the age of thirty-five years he should be able to begin his refunding. If he will employ this sum annually to purchase a \$4,000 twenty-year endowment policy, he can receive back the entire amount of his initial investment, with interest, when he is fifty-five years old. The first annual premium will be \$186.80, but the dividends will reduce the average annual cost to about \$160.* This \$4,000 will form part of the competency which is to support him in old age.

* Data by courtesy of the Provident Life & Trust Co.

It is obvious that if this sum is taken from the practice and deposited in the dentist's personal account it will be dissipated without achieving its end, which is to enable the dentist to recover the money invested in special education and equipment by the end of his great earning period. It will also serve as a beginning of the competency against old age.

The fact that this refunding practice is rarely followed by dentists is rather an indictment of their habits than of the principle.

OPERATING EXPENSES

In order that the dentist may know what it costs him per hour to conduct the office, he must tabulate all those items for which he is required to expend money for the office. In order to be accurate, this accounting should be made for a period of at least a year. It is profitable to make it for each year and to determine by comparison with other years, whether expenses and profits are maintaining satisfactory relations.

The first item under the heading Operating Expense may well be the amount to be set aside for depreciation. The second should be the amount set aside for refunding the investment. The others may follow in the order suggested in Chapter Eight, and any items of the practice for which money is expended but which are not included here may be added. No charge for interest on the sum invested should be made if the refunding

charge is made as here suggested. If the refunding charge is not made, a charge for interest may be made.

The sum of all these items will give the proper operating costs for the period covered by the accounting.

THE INCOME HOUR EXPENSE

If the sum of all the operating expenses for a year be divided by the number of income hours, it shows how much the dentist is compelled to expend during each income hour to maintain the office, without providing his own remuneration.

Dentists who have not kept careful records of their income hours for at least a year, are advised to divide their annual expense by 1,000 income hours. If their income hours per year should number more than 1,000, the error will be on the safe side.

In all the following computations, 1,000 income hours per year is used as the basis for estimating expense and receipts.

THE DENTIST'S REMUNERATION

is ordinarily the sum which is left after the expenses of the practice are paid. As practices are usually conducted, it is largely a matter of circumstances. Only rarely are fees adjusted to enable the dentist to earn a predetermined amount annually. In most cases no provision is made for a depreciation fund or for refunding the investment, and the dentist puts into his pocket as remuneration and spends for personal expenses the

amounts which should have been set aside for these purposes. The results are that the dentist appears to have a larger personal income than he really has and he finally loses the amount invested in education and equipment, and has to pay for replacements out of his pocket, or go without them and allow the equipment to deteriorate in appearance or efficiency.

If a dentist hires an assistant operator, he agrees to pay him a certain amount each week. If a dentist can do this for an assistant, he can do it for himself. And most dentists will gain much in the conduct of their offices and in personal and business liberty, if they will determine what the practice can afford to pay them, and will then see that the practice pays them that sum as salary each week. No other sums should be drawn from the practice until it is shown by proper accounting that the practice can afford to pay more.

The dentist who follows this policy reaps decided business advantages, some of which are as follows:

The practice will accumulate sufficient capital to discount all bills and to buy in the most advantageous manner.

All replacements and repairs will be met from the depreciation fund, preferably in a separate bank, without making drains on the personal funds.

There will be steadily accumulating the refunding fund which will more than return the investment in education and equipment. If an insurance policy is

bought with this fund and the dentist should die immediately after the policy is purchased with the first installment of this fund, the family will receive back the entire amount invested, and there will be no disappointment for the dependents when the office is sold.

The dentist will undeceive himself as to how much money he has for all personal expenses. The style of living may then be adapted to this, and present worries and future privations avoided. Much of the personal extravagance which characterizes members of all professions is doubtless due to the fact that they do not know how to apportion the amounts they receive, and they usually underestimate their expenses and overestimate the amounts available for personal expenditure.

THE AMOUNT OF REMUNERATION

Any dentist may determine how much his practice can afford to pay him weekly by computing his expenses after the form given in Chapter Eight and deducting the sum of his expenses from his gross receipts. The averages so far obtainable show that practices can afford remunerations about as follows:

Gross receipts of \$1,600, annual remuneration of.....	\$	688
" " " 2,000, " " "		952
" " " 2,500, " " "		1,424
" " " 3,000, " " "		1,734
" " " 3,500, " " "		1,943
" " " 4,000, " " "		2,029
" " " 4,500, " " "		2,333
" " " 5,000, " " "		2,445

In cases where such computation shows that the salary received by the dentist is too low for comfortable living, the method by which it is to be changed is clearly indicated. It is to add to the annual expense the amount which should be received as salary and divide the sum by 1,000. This will give the minimum fee per income hour which will pay the expenses and afford the dentist that salary.

It is believed that any one who has received the proper training for the practice of dentistry and has provided proper equipment for the service of patients is entitled to at least \$1,200 per year remuneration. The reports on Costs and Receipts in Practice, which follow, show that in practices of \$2,000 gross annual receipts, the average expense is \$848, exclusive of precious metals, and that the sum available for the dentist's remuneration is \$950, or about \$18.00 per week. The minimum fee which will maintain a practice in this condition is \$1.80 per income hour, exclusive of the costs of teeth and precious metals.

If the dentist's remuneration is to be increased to \$1,200 per year, it will be necessary to add \$1,200 to the \$848 of expense, and divide the sum, \$2,048, by 1,000 hours. This will determine the minimum fee of \$2.05 per hour, exclusive of teeth and precious metals.

EXTRAVAGANT REMUNERATION

It might be thought that if the dentist were left to

fix his own remuneration he would often place it unduly high. There is, however, an effective check on such action in the fact that the community will not pay him more than it thinks his services worth. And surely he is entitled to collect whatever sum people are willing to pay him.

Thus, if Dr. John Doe is now receiving \$1,200 per year as remuneration and suddenly decides that he should receive \$10,000 per year and advances his fees to produce that sum, he will undoubtedly destroy his practice, because he has not taught the community to value his services at any such figure. But he might make the advance of 80 cents per hour necessary to increase his remuneration to \$2,000, and be able to persuade a sufficient number of people that his services were worth that sum. In a year or two he might increase the fees by another 80 cents, and if the opinion of the community was sufficiently favorable, retain most of his old patrons and attract new ones.

The community may safely be trusted not to pay a dentist more than he has been able to convince it he is worth.

PART II

COSTS AND RECEIPTS IN PRACTICE

CHAPTER EIGHT

SUMMARIZING COSTS AND RECEIPTS IN PRACTICE

Reports from two hundred and fifty practices have been received upon the printed form shown on pages 61, 62 and summaries of the figures are given in Chapters Nine to Fourteen inclusive. It must be borne in mind that these reports have been made at a time which is early in the history of the business development of the profession, and though some are from carefully itemized accounts, others are from general records and a few are from estimates. It is believed, however, that they form the most intelligent basis obtainable at this time for estimating office expense and receipts.

The reports of expenses and receipts in the following practices have been made on this form and that on the following page.

METHOD OF ESTABLISHING COMPARISONS

In order that the present condition of any practice may be learned, and comparisons may be made between different practices, it is necessary to establish a uniform method of summarizing expenses and receipts under proper headings. It is believed that the headings here employed will give this information.

THE HEADINGS OF THE COLUMNS

The first column shows the individual number of the practice. This is for the purposes of reference and identification.

The second column shows the gross annual receipts of the practice.

The third column, headed Investment, shows the amount invested in dental college education and in fitting up the office.

The fourth column, headed Overhead Expense, shows the sum of the amounts expended for depreciation, refunding, rent, light and power, heat, assistants, telephone, laundry, express and postage, insurance, taxes, and all the expenses, except purchase of materials, which are common to the conduct of all operations and go on during office hours as well as during income hours.

Beginning with practices showing annual gross receipts of \$2,500, is another column with the heading "Laboratory Bills." This column shows amounts paid to laboratories outside the office. A separate report on this item was not asked for until recently, and when not shown separately the amount is probably included in the expense and materials columns.

The heading Precious Metals is self explanatory. The amount in this column should include all expenditures for teeth, because precious metals and teeth should be charged directly to the patients for whom they are

ESTIMATING OFFICE EXPENSE

1. College costs	\$1,000.00
2. Three years' time at \$500	1,500.00
	<u>\$2,500.00</u>

Reception Room Investment

3. Getting Room Ready for Occupation. . . \$	_____
4. Floor Covering	_____
5. Table	_____
6. Chairs	_____
7. Pictures	_____
8. All items not included above	_____

Operating Room Investment

9. Getting Room Ready for Occupation . . .	_____
10. Floor Covering	_____
11. Chair and cuspidor	_____
12. Bracket Table	_____
13. Cabinets, Tables, etc.	_____
14. Engine	_____
15. Switchboard and attachments	_____
16. Appliances and instruments	_____
17. Linen	_____
18. All items not included above	_____

Laboratory Investment

19. Getting Room Ready for Occupation . . .	_____
20. Benches, sink, etc.	_____
21. Compressed air	_____
22. Lathe	_____
23. Casting appliances	_____
24. Soldering appliances	_____
25. Articulators, Trays, etc.	_____
26. All items not included above	_____
	\$ _____ \$ _____

Summary of Office Expenses

Overhead Expenses	27. Depreciation (10% of the sum first invested in the office)	\$ _____	
	28. Refunding investment (5% annually of the total investment, including dental college expenses)	_____	
	29. Rent, Heat, Light and Power. . .	_____	
	30. Telephone	_____	
	31. Laundry	_____	
	32. Assistant	_____	
	33. Publicity (cards, tickets, etc.) . .	_____	
	34. Express and Postage	_____	
	35. Taxes, Insurance	_____	
	36. Magazines, Books, Stationery, Society expenses	_____	
	37. Miscellaneous	_____	
	Total Overhead Expense . .	\$ _____	\$ _____

Supplies	38. Laboratory bills	_____	
	39. Supplies other than precious metals	_____	
	40. Precious metals	_____	
	Total Supply Bills	\$ _____	\$ _____

Annual Office Expense (sum of Nos. 27 to 40) \$ _____

Annual gross receipts _____

Less annual office expense _____

Amount available for remuneration and office capital _____

Subtract the expenditure for precious metals from the sum of the expenses; add the resulting amount to the remuneration, and divide by 1,000 income hours. The quotient will be the minimum hourly fee. When teeth or precious metals are used, add their cost in the final fee.

used, and not to patients for whom they are not used. For this reason the amount of each fee should be determined without including the cost of precious metals or teeth, and the cost of the metals or teeth should be added to the individual fee, in the cases where they are used. The amounts in this column are not included in the estimates of fees made herein.

The column headed Other Supplies shows the amounts spent for all materials consumed in the conduct of the office, such as amalgam, cements, rubber, plaster, instruments, burs, etc., which cannot be conveniently charged against individual patients. The amounts, as here given, doubtless include the expenditures for teeth, which should go into the Precious Metals column, and be charged directly to individual patients.

The column headed Percent of Expense to Receipts shows the percentage of receipts used up by the expense of the practice, not including remuneration.

The column headed Annual Remuneration shows the amount the practice can afford to pay the dentist as a salary, after the proper charges against the practice have been paid. The column headed "Remuneration each of 52 weeks" divides the annual remuneration, so that the dentist may see how much he is worth to his practice for each of fifty-two weeks in a year.

The column headed "Present Minimum Fee" shows

the smallest fee per income hour exclusive of precious metals and teeth which will defray proper charges against the practice and afford the dentist the remuneration shown. This column is shown only for practices in Classes I and II.

In the column headed Suggested Minimum Fee will be found the lowest fee per income hour, exclusive of precious metals and teeth, which will enable the dentist to earn \$1,200 per year as remuneration. The costs of precious metals and teeth must be added to this fee, in cases where they are used. This column is shown only in reports of practices having annual gross receipts of less than \$2,500.

CLASSES OF PRACTICE

To facilitate comparison between practices of like amounts it has been found advisable to divide practices into classes according to the amount of gross receipts. The unit for division has been \$1,000. The practices are given individual numbers for special reference.

Class I, includes all practices with gross receipts under \$2,000 annually.

Class II, includes all practices with gross receipts from \$2,000 to \$2,999.

Class III, includes all practices with gross receipts from \$3,000 to \$3,999.

Class IV, includes all practices with gross receipts from \$4,000 to \$4,999.

Class V, includes all practices with gross receipts from \$5,000 to \$5,999.

Class VI, includes all practices with gross receipts from \$6,000 to \$6,999.

Class VII, includes all practices with gross receipts from \$7,000 to \$7,999.

Class VIII, includes all practices with gross receipts from \$8,000 to \$8,999.

Class IX, includes all practices with gross receipts from \$9,000 to \$9,999.

Class X, includes all practices with gross receipts from \$10,000 to \$10,999, etc.

It will be easy to remember the class number if it is observed that the class number is the same as the first figure of the gross receipts.

CHAPTER NINE

CLASS I PRACTICES

Practices in this class show annual gross receipts of less than \$2,000. The reports available are tabulated below.

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts	Present Minimum Income Hour Fee*	Suggested Minimum Fee*	Resulting Yearly Increase
1	\$1,086	\$3,394	\$351	\$50	\$94	\$591	\$11.37	.45	\$1.03	\$1.64	\$414
2	1,249	3,000	456	55	145	593	11.40	.52	1.19	1.80	606
3	1,292	3,165	442	128	128	594	11.42	.54	1.16	1.77	590
4	1,344	3,300	561	82	90	611	11.75	.55	1.25	1.85	588
5	1,400	4,885	626	90	120	564	10.85	.59	1.31	1.95	640
6	1,400	3,116	487	180	180	553	10.63	.61	1.23	1.87	650
7	1,463	3,281	873	.....	.....	590	11.35	.60	.....	.....	.....
8	1,500	3,387	523	250	200	527	10.13	.65	1.25	1.92	652
9	1,600	3,692	841	300	200	259	4.98	.84	1.30	2.24	900
10	1,733	3,396	396	160	200	977	18.78	.43	1.57	1.80	227
11	1,800	5,127	1,052	107	213	428	8.23	.76	1.69	2.46	747
12	1,800	3,162	540	180	180	900	17.31	.50	1.62	1.92	300
13	1,848	3,423	550	133	133	1,032	19.85	.44	1.71	1.88	165
14	1,900	3,443	549	150	180	1,021	19.63	.46	1.75	1.93	180
15	1,900	3,662	625	160	140	975	18.75	.49	1.74	1.96	220
16	1,900	4,625	539	161	161	1,039	19.98	.45	1.74	1.90	161
17	1,950	4,084	862	350	300	438	8.42	.77	1.60	2.36	760
Totals	\$27,165	\$62,142	\$10,273	\$2,536	\$2,664	\$11,692	\$224.84	.....	.....	.....	.....
Average	1,598	3,655	604	149	157	688	13.23	.57	.....	.....	.....

For each of 1,000 income hours. .60 .15 .16 .70

* Exclusive of precious metals.



WHY BE A DENTIST?

What financial inducement is there to be a dentist with a practice of \$2,000 or less annually? The preparation for work calls for an investment of nearly \$3,500. One must then spend from two to five years "getting the practice," must be one's own business getter, contractor, workman and collector in order to earn an average weekly wage of \$13.23 between the ages of, say thirty and sixty. As the remuneration is not great enough to permit refunding the investment and laying aside a competency, the dentist is certain to lose his entire investment by the time he ceases practice.



A HOD-CARRIER'S EARNINGS

This hod-carrier works 45.5 hours per week at a wage of 35 cents per hour, a total of \$15.93 per week. This is \$2.70 more per week than the reports show that these dentists in Class I average to earn.

This hod-carrier has no investment in preliminary education and no office to maintain. If he works at night he is paid time and a half. On holidays and Sundays he is paid double time.

He begins work about the age the dentist enters dental college, and probably works quite as many years as the average dentist.

Is he not financially better off than a dentist with a gross practice of \$2,000 or less, annually?

AVERAGES FOR THIS CLASS

Gross receipts, \$1,598. Investment, \$3,655. Overhead expense, \$604. Annual remuneration, \$686.

Sum available weekly for salary, \$13.23.

Expenses, not including remuneration, are 57 per cent. of the gross receipts.

The average office expense for each of 1,000 income hours, obtained by adding the expenditures for overhead expense and supplies, is 76 cents.

The average remuneration for each of 1,000 income hours is 70 cents.

The lowest average fee for each of 1,000 income hours which permits maintaining a practice of \$1,598 gross annual receipts, is \$1.46 per hour, exclusive of the cost of teeth and precious metals.

The lowest average fee which would permit the practices here reported to pay annual salaries of \$1,200, is \$1.95 for each of 1,000 income hours, exclusive of the cost of teeth and precious metals.

GENERAL DEDUCTIONS

One is struck immediately by the conviction that a dental practice with annual gross receipts of less than \$2,000 offers but few opportunities for earning a satisfactory living, and precludes any financial provision for recovering the amount invested or for old age. It is apparent that the only financial justification for continuing a practice with such small gross receipts is the

possibility of developing it into a larger practice, or a personal preference for dentistry as a means of earning a living.

The average sum available as remuneration in practices in this class after all proper charges against the practice are paid appears to be \$13.23 per week and the maximum sum about \$20.00. To obtain this remuneration, the dentist has invested \$3,655, a sum equal to his entire earnings for a period of more than five years. Furthermore, as it is impossible for the dentist with a practice of this amount to make proper provision for depreciation and refunding and then live on the small sum remaining, he will be obliged to utilize for mere living expenses, the entire receipts, save unavoidable purchases for the office, and he will thus finally lose the entire sum invested.*

This is equivalent to paying \$3,655 to obtain a job netting from \$13.00 to \$26.00 per week, a proposition no sane man would entertain.†

Slight familiarity with the labor conditions of to-day

* A number of careful investigations to determine the smallest annual expenditure on which a family of two adults and three minor children can be supported in health and social decency, agree that the annual cost of a decent living for such a family is from \$750 to \$1,000 a year in Eastern cities. After an exhaustive investigation, it is reported that the minimum amount necessary to support a family of five efficiently in the stock yards (Chicago) district, is \$800 per year.—*Dr. Scott Nearing, "The Adequacy of American Wages."*

The minimum sums here referred to exceed the average amount available from these practices unless the investment is lost.

The managing board of one of the Protestant churches recently served notice upon congregations that the smallest annual salary upon which its ministers could be expected to live, is \$2,000 per year.

† The sums charged in the accounting of these practices for Depreciation and Refunding, average \$295 per practice, or in round numbers \$6 per week. The use of this amount for living purposes apparently increases the income by that much, but at the end of the working period the dentist loses the \$3,655 invested.

shows that dentists with practices of this amount are financially worse off than any of several forms of union labor. The average wage of union hod-carriers is \$15.93 per week. Plasterers' laborers earn \$16.90 per week.*

Their earnings are frequently increased by the fact that they are paid one and one-half times this rate for every hour of overtime on working days, and twice that rate for all overtime on holidays and Sundays. None of the journeymen workers mentioned has any overhead investment. Few of them have ever possessed the amount the dentist has been compelled to invest to earn less than they earn.

The dentist does far more for his pittance than any of the laborers mentioned above. He is his own business getter, diagnostician, service seller, contractor, workman and collector. He assumes all the responsibilities to the community of conducting a business and the added responsibility to patients of practising a profession.

INADEQUATE FINANCIAL REWARD

Such earnings are entirely out of harmony with that which the dentist represents. The service he renders is based upon professional studies by great numbers of men over a long period of years, and similar in character to the studies on which the practice of medicine is founded. The dentist is, for the moment, the

* Union Scale of Wages and Hours of Labor. U. S. Dept. of Labor, May, 1913.

representative of the latest scientific knowledge and technic, to the development of which hundreds of dental colleges, dental societies and dental students are devoting their greatest efforts, and in the promulgation of which there is invested in the manufacture and sale of dental supplies, millions of dollars in the United States alone. Surely a professional man who brings to his patients the benefits of knowledge so created should reap at least satisfactory remuneration.

The education the dentist has received, and the fact that he is a professional man usually unfits him to live as most laborers are willing to live. Nor can he afford to live in that manner if he desires to secure the patronage of desirable people. He is thus compelled to support greater expense on a smaller weekly income.

RELATIONS OF EXPENSE AND REMUNERATION

A mere glance at the figures shows that the amount of remuneration varies greatly with different practices, even within this narrow range. It does not always increase as the gross receipts increase. It decreases as the expenses are increased, either by the necessity of supporting a large investment, or by the purchase of the large amount of supplies necessary when fees are low. Thus in Practice No. 11 the investment is large and entails an expense of \$519 per year for depreciation and refunding. In Practice No. 2 the investment is small and requires only \$200 per year for depreciation

and refunding. Dentist No. 11 must earn \$319 per year more than No. 2 merely for expenses, and without any corresponding increase in his remuneration. If he does not earn and set aside this amount, he will lose more than \$5,000 of investment when he ceases practice, or his family will lose it when he dies. In Practice No. 17, the bill for supplies is \$300 per year, while in Practice No. 15, with nearly identical gross receipts, it is only \$140. Dentist No. 17 must earn \$160 annually more than No. 15, merely for supplies and with no increase in his remuneration.

ANALYSIS OF INDIVIDUAL PRACTICES

Practices numbered 1, 10, 12, 13, 14, 15 and 16 show expenses well proportioned to the gross receipts. Nos. 1, 10 and 14 are located in very small towns and have low rent, telephone and light charges. No. 16 is in a town of 5,000, and 12 and 14 are in a city of 250,000, and have higher rent charges. The average annual remuneration is \$932.

Practices Nos. 2, 3, 4, 5 and 6 show expenses ranging from 52 per cent. to 59 per cent. of the gross receipts. All of these practices are located in towns of 2,000 people or less. Although these practices average \$400 less in gross receipts than Nos. 1, 10, 12, 13, 14, 15, 16, the average office expense, except precious metals, is practically identical in both groups. In other words, it costs dentists Nos. 2, 3, 4, 5 and 6 practically as much,

except for precious metals, to conduct practices averaging \$1,337 as it does dentists Nos. 1, 10, 12, 13, 14, 15 and 16 to conduct average practices of \$1,738.

A comparison of the remuneration possible from these two groups of practices shows that the group comprising Nos. 1, 10, 12, 13, 14, 15 and 16 permits an average annual remuneration of \$932 as against \$581 in the group comprising Nos. 2, 3, 4, 5 and 6.

These totals might be different if our business experience were great enough to enable each of these dentists to furnish exhaustive and exact statements.

Practices Nos. 7 and 8 show total expenses equal to between 60 and 65 per cent. of the gross receipts. It is impossible to make an analysis of Practice No. 7 because the report did not separate the office expense from the supplies and precious metals, but as it is located in a small town, the expense seems unnecessarily high. In No. 8 the bills for supplies and precious metals seem high in proportion to the amount of gross receipts, and these, rather than the overhead expense, keep the remuneration small. It may be that the fees in this practice are unnecessarily low, and that the dentist is sacrificing his own remuneration for the sake of rendering a high quality of service or because of fear of competition.

Practice No. 17 is located in a city of 150,000 and the rent is high. The amounts given for supplies and precious metals also seem high in comparison with the

gross receipts, and may indicate low fees and that a relatively large amount of service is rendered to earn a very small salary. If the amounts for depreciation and refunding were entirely omitted from the accounting, this dentist would still earn only \$15 per week salary, and would finally lose the \$4,084 he has invested.

Practice No. 11 is located in a town of 2,500 people and shows an operating cost of 76 per cent., due in part to the excessive investment in equipment for a practice in a town of this size, and partly to the employment of an assistant at \$5 per week. While the ambition to own a fine office and make a proper impression is laudable, and an assistant lends dignity to an office and saves the dentist's time, it seems that in a town of this size a less expensive equipment would answer quite as well, and the employment of an assistant who reduces the dentist's own salary by nearly half, seems inadvisable when he has not nearly enough patronage to occupy all his hours. It will require this dentist's net earnings for twelve years at his present rate to repay the amount of investment in this office.

Practice No. 9 stands in a class by itself for high operating costs, and for low net earnings, showing expenses of practically 84 per cent. of the receipts and being able to pay the dentist less than \$5 per week. This high cost is traceable entirely to the employment of an assistant at \$250 per year, and to the high supply and precious metals bills, these last two totaling \$500.

It seems probable that these reports of supply and precious metals bills are merely estimates, and it is to be hoped that such is the case or this dentist can have but little profit from his practice.

It will be noticed that the proportions of precious metals and supply bills vary greatly in different practices, which may indicate quite different kinds of service in these practices. Thus Practice No. 15 reports a total of \$300 per year for supplies and precious metals, while Practice No. 17, with only \$50 more gross receipts annually, reports \$650 per year for precious metals and supplies. It may be that in Practice No. 15 the service consists largely of extractions, amalgam fillings, cements, etc., while in Practice No. 17 it may comprise many gold inlays, bridges, etc. The difference in the dentist's remuneration in these two practices is considerable, and is largely accounted for by these differences in purchases.

CHAPTER TEN

CLASS II PRACTICES

Practices in this class show annual gross receipts of from \$2,000 to \$2,999, inclusive. The number of practices reported upon is such and the range of receipts and expenses so great that it seems advisable to subdivide the class.

CLASS II—\$2,000 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts	Present Minimum Income Hour	Suggested Minimum Income Hour Fee
18	\$2,000	\$5,200	\$595	\$275	\$275	\$855	\$16.44	57	1.72	2.10
19	2,000	3,888	797	240	36	927	17.82	54	1.76	2.10
20	2,000	3,920	834	50	200	916	17.61	54	1.95	2.40
21	2,000	3,878	817	180	144	859	16.52	57	1.81	2.40
22	2,000	3,550	531	300	100	1,069	20.56	46	1.70	2.40
23	2,000	3,604	562	150	200	1,088	20.92	46	1.85	2.10
Totals	\$12,000	\$24,040	\$4,136	\$1,195	\$955	\$5,714	\$109.87	.....	.....	.....
Averages	2,000	4,006	689	199	159	952	18.31	52	.....	.....
For each of 1,000 income hours			\$.69		\$.16	\$.95				

DEDUCTIONS

The average office expense for each of 1,000 income hours, obtained by adding the expenditures for overhead expense and supplies, is 85 cents.

The average remuneration for each of 1,000 income hours is 95 cents.

The lowest average fee for each of 1,000 income hours, which permits maintaining a practice of \$2,000 gross per year, is \$1.80, exclusive of the cost of teeth and precious metals.

The average weekly remuneration in these six practices is somewhat greater than that of the hod-carriers and plasterers' laborers, but by no means equals that of union carpenters. The only financial advantage the dentist has to offset the carpenter's higher weekly wage is that the carpenter probably does not work as many weeks per year. Some carpenters are employed fifty weeks a year, in which case they earn \$1,150, at union wages, which is \$200 a year more than these dentists earn.

ANALYSIS OF PRACTICES

In the establishment and conduct of these practices of the same gross amounts, wide differences in initial cost, in annual expense, in business ability, and in characters of practice are easily visible.

Practice No. 18 is located in a town of only 5,000 inhabitants, but the investment is high. This is due to the fact that when this dentist took up the study of dentistry he was a salesman earning \$1,200 per year over his expenses, and the value of the three years' time he sacrificed in dental college is \$3,600. His cash



The carpenters of the United States earn, on the average, \$23 per week, which is nearly \$5 per week more than the average dentist with a \$2,000 gross practice. To do this, they work 46 hours per week, which is but little more than the office hours of the dentist, who, unfortunately, cannot collect a fee for every hour he works. If the carpenter works as many weeks in a year as a dentist with such a practice, he is much the better off of the two, financially.

expense in college was \$1,000 and, with a moderate equipment, brings his investment to \$5,200. In spite of this, a combination of the house and office in one building, with one rent, light, heat, 'phone and laundry bill, reduces the general expense annually to \$595. Even under these favorable conditions, his remuneration is not equal to his former salary, but he is satisfied because he suffers from certain physical disadvantages.

Under the present conditions, the minimum fee in this practice is \$1.72 per income hour, exclusive of precious metals. It is suggested that the fee be made \$2.10 per income hour ($3\frac{1}{2}$ cents per income minute), exclusive of teeth and precious metals. This will effect a minimum increase of \$375 annually in gross receipts, and almost that much in remuneration.

It will be found worth while for dentists who have house and office combined in this way to separate office accounts, for the purpose of learning just where they stand. It will often be a revelation, as the following incident shows.

A certain dentist desired to marry, but in spite of a large practice seemed never to have enough money ahead. After graduation from a good college he had returned to his boyhood town, built an addition to his father's fine home, quickly gathered a practice at fees common in the community, lived at home, paid neither board nor office rent, and worked early and late. He was envied by many dentists who knew him.

The years slipped away and the money necessary for matrimony still not being at hand, he hired an accountant to put his records in shape. It was found that if he had paid for rent, light and power, 'phone, laundry, etc., his practice would have netted him less than \$15 per week. No wonder he couldn't marry! He immediately entered upon the task of gradually putting his fees on a basis suited to his quality of service, and while it was hard work, he succeeded and has for some years been happily married and in the possession of a good income.

In practice No. 19 the bills for rent, heat, light and laundry are high for the size of the town and amount of practice, totaling \$321 per year. The amount of supplies is so low as to probably indicate inaccuracy in the accounts or an error in reporting. Taken in connection with the much larger sum for precious metals, it might indicate that this dentist did a large amount of inlay, gold filling or bridge work. The present and suggested income hour fees are shown in the table.

No. 21, a city practice, shows a very small annual expenditure for supplies. This is probably either a mere estimate on the dentist's part, or an error in reporting. If this amount were even approximately correct, it would seem that this practice consisted largely in extractions, amalgam filling, etc., for little crown or inlay work can be done on a monthly expenditure of \$4 for precious metals.

Practice No. 20 shows the highest expense of any in this group because it pays the highest rent and 'phone, and is the only one which employs an assistant. If this practice is growing and serving a select clientele the dentist may be justified in hiring an assistant. If it has stood at the same level for several years, he is not justified in hiring even a low priced assistant because his own net salary is only \$17.61 per week.

The burden caused by these high expenses is reflected in the fact that dentist No. 20 must earn \$1.95 per income hour to have \$18.32 per week for himself, while No. 19 needs to earn only \$1.76 per hour to have \$18.54. That difference of 19 cents per hour seems small, but when it is to be unfailingly collected for every income hour, it becomes important.

The suggested income hour fee for practice No. 20 is \$2.40, or 30 cents more than for No. 19. On a piece of work requiring ten hours, such as a full denture, this would make a difference of \$3, and if these men were competitors, and shortsighted, might lead to price cutting.

Such errors as these in accounting are less likely to arise from errors in reporting, than from a lack of proper business records and a "belief" by the dentist that this is the sum he spent in a year. These errors are the greatest element of uncertainty in the reports and estimates here offered. A proper accounting in this practice would probably show expenditures of about

\$160 per annum for precious metals and a like sum for other supplies.

No. 21 is also a city practice and pays a high rent and 'phone bill, but employs no assistant. The precious metals and supply bills are carefully reported.

No. 22 is a city practice but pays low rent, 'phone and light bills.

No. 23 is located in a small town but reports greater expense than No. 22. The reports of closely similar overhead expenses in two practices of like annual receipts in places of such different size, show that the expense differs more with the character of the practice and the individuality of the dentist than with the size of the town.

CLASS II PRACTICES—\$2,200 TO \$2,499 DIVISION

DEDUCTIONS

The average office expense for each of 1,000 income hours, obtained by adding the overhead expense and supplies, is \$0.77. This is 8 cents less per hour than in the \$2,000 division of this class, but is in accordance with the figures reported. It is accounted for by an average decrease of \$155 in overhead expense, and \$10 for precious metals, but this is partly overcome by an increase of \$79 for supplies, so that the net decrease is \$86.

The average annual remuneration is \$1.38 for each

PROFITABLE PRACTICE

CLASS II—\$2,200 TO \$2,499 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts	Present Minimum Income Hour Fee	Suggested Minimum Fee	Resulting Yearly Increase
24	\$2,200	\$3,387	\$582	\$150	\$150	\$1,318	\$25.34	.40	\$2.05	\$2.40	\$350
25	2,224	3,314	414	150	200	1,460	28.08	.34	2.07	2.40	326
26	2,297	3,320	480	260	300	1,257	24.17	.40	2.04	2.40	363
27	2,300	4,128	688	150	350	1,112	21.38	.51	2.15	2.40	250
28	2,300	3,361	554	150	175	1,421	27.32	.38	2.15	2.40	250
29	2,400	3,527	607	120	350	1,323	25.44	.44	2.28	2.40	120
30	2,400	2,968	541	300	200	1,359	26.13	.43	2.10	2.40	300
31	2,400	3,677	490	150	200	1,560	30.00	.35	2.25	2.40	150
32	2,400	3,443	417	210	210	1,563	30.06	.34	2.19	2.40	210
33	2,478	3,193	567	250	250	1,411	27.13	.43	2.23	2.40	172
Totals	\$23,399	\$34,318	\$5,340	\$1,890	\$2,385	\$13,784	\$265.05				
Averages	2,339	3,431	534	189	238	1,378	26.50	40			
For each of 1000 annual income hours											
			\$.53		\$.24	\$1.38					

of 1,000 income hours. These are the first practices in which the dentist's remuneration is in excess of \$1.00 per hour.

The lowest fee which will permit the maintenance of a practice of \$2,339 per year, is \$2.15 for each of 1,000 income hours, exclusive of the cost of teeth and precious metals.

The average remuneration for each of 52 weeks is \$26.50, which is a higher wage than the hod-carriers, plasterers' laborers and carpenters receive, and is nearly equal to the weekly pay of a union plumber, which is \$27.60. These dentists doubtless work more weeks in a year than the plumbers, but when both are working the plumber is the better paid of the two. And when the plumber works on Sundays or holidays, he earns more money, net, per hour, than the average dentist in this group.

A minimum fee of \$2.40 per income hour or 4 cents per income minute, in addition to the cost of teeth and precious metals, is suggested. It will permit an average annual remuneration of slightly over \$1,600.

ANALYSIS OF PRACTICES

These ten practices fall into three groups as regards the proportion of expense to gross receipts.

The first group comprises practices Nos. 25, 28, 31 and 32 in which the expenses are less than 40 per cent. of the gross receipts. Three of these practices are



THE PLUMBER

averages to work 46 hours per week at 60 cents per hour, earning \$27.60 per week. If this plumber and a dentist with an average \$2,000 gross practice were to commence work at the same hour Monday morning, the plumber could pay the dentist's remuneration Saturday night, from his wages and have \$9.30 left.

located in small towns and the other in a large city. The average expenditure for rent, heat, light and 'phone is only \$175 per year, these expenditures in the city practice being unusually low. The average expenditure for supplies is \$195 per year, and for precious metals is \$165. If one can judge by the average of a large number of practices, these amounts are well proportioned, and seem to indicate that these dentists are receiving fairly remunerative fees for their services. Certain it is that the average remuneration in these four practices is \$1,500 per year, which is greater than the remuneration in any of the other practices reported in this division.

In practices Nos. 24, 26, 29, 30 and 33, the expenses vary from 40 to 45 per cent. of the annual gross receipts. Three of these practices are located in small towns, and one in a city. The average of expense for rent, heat, light, and 'phone is \$192, which is \$17 greater than in the group above. The greater percentage of expense in these practices is largely accounted for by the fact that the three small town practices average to expend \$507 annually for precious metals and supplies, which is much more in proportion to the receipts than in the group above. The expenditure of so large a sum, in proportion to the gross receipts for precious metals and supplies, may usually be taken as evidence that the fees common to the practice are low, more especially in operations involving precious metals,

such as crowns, inlays, etc. Such low fees may easily result from unintelligent fee competition between dentists. The city practice expends only \$300 for precious metals and supplies. This difference might indicate that in the city practices the service is largely such as does not require expensive supplies, such as amalgam fillings, extractions, etc., or that the fees are higher and less service is required. The result of these heavy expenditures for supplies and precious metals is that the dentists in this group receive, on the average, only \$1,333 as remuneration, which is \$167 less than in the group above.

Only one more practice in this division remains, No. 27, in which the expenses are 51 per cent. of the gross receipts. This practice is located in a town of 10,000 people. The expense for rent, light, heat, and 'phone is \$300 yearly, and the expenditures for precious metals and supplies are \$500. These high expenditures may indicate poor management in buying, or that the dentist is rendering a high quality of service at low fees. The owner of this practice receives nearly \$400 less remuneration than the owners of Nos. 25, 28, 31 and 32, and over \$200 less than the owners of Nos. 24, 26, 29, 30 and 33.

The different amounts available for remuneration in different practices of nearly the same gross annual receipts indicate the importance of directing attention to the minute details of management.

CLASS II—\$2,500 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 Weeks	Per Cent. of Expense to Receipts	Present Minimum Income Hour Fee
34	\$2,500	\$3,383	600	.....	\$145	\$172	\$1,583	\$30.42	.36	\$2.35
35	2,500	3,552	803	.....	134	166	1,397	26.86	.44	2.36
36	2,500	3,434	536	.....	150	150	1,664	32.00	.33	2.35
37	2,500	3,057	433	.....	100	150	1,817	34.92	.27	2.40
38	2,500	2,888	400	.....	300	360	1,440	27.69	.42	2.20
39	2,500	.....	549	.....	200	300	1,451	27.90	.42	2.30
40	2,500	3,200	446	.....	120	120	1,814	34.88	.27	2.38
41	2,500	.....	392	.....	102	103	1,903	36.59	.24	2.40
42	2,500	3,395	452	.....	200	150	1,698	32.65	.42	2.30
43	2,500	3,287	465	.....	100	100	1,835	35.67	.26	2.40
44	2,500	3,499	897	350	500	30	723	13.90	.71	2.00
45	2,500	3,755	1,195	200	250	50	805	15.48	.67	2.25
46	2,500	4,132	1,054	500	50	50	846	16.26	.68	2.45
47	2,500	3,469	971	100	450	40	939	18.05	.61	2.40
Totals	\$35,000	\$41,051	\$9,193	\$1,150	\$2,861	\$1,941	\$19,915	\$383.27	.....	.....
Average	2,500	3,420	656		200	138	1,424	27.37	.44	.....
For each 1000 income hours			\$.68			\$.13	\$1.42			

DEDUCTIONS

The average office expense for each of 1,000 income hours, obtained by adding the expenditures for overhead expense, laboratory bills and supplies, except precious metals, is \$1.16.

The average remuneration for each of 1,000 income hours is \$1.42.

Some of the practices in this division are reported without any bills to outside laboratories, and some with bills to outside laboratories.

The lowest fee for each of 1,000 income hours which will maintain practices No. 34 to 43 inclusive, that is, practices not reporting outside laboratory bills, in their present condition, is \$2.35, exclusive of precious metals.

The lowest fee which will maintain practices No. 44 to 47 inclusive, that is, the practices reporting bills to outside laboratories, in their present condition, appears to be \$2.20 for each of 1,000 income hours, exclusive of the cost of precious metals. As, however, some precious metals are undoubtedly charged into the laboratory bills, this accounting is inaccurate to that extent.

The average of these minimum fees in round numbers is \$2.30 for each of 1,000 income hours, exclusive of the cost of precious metals.

OHIO AND INDIANA AVERAGES

The analysis of the practices in this division is of special interest for the reason that investigations by dental societies in the states of Ohio and Indiana have resulted in reports that the average dental practice in those states shows annual gross receipts of \$2,500.*

The reports to the societies indicated that the average cost of conducting practice was 40 per cent. of the annual gross receipts and that the average net income from such practices was \$1,500 per year. The figures

* Survey Central Dental. Ohio Dental Society. Reports of a survey in Indiana.

in this division might seem to bear out very closely those reports, since the average cost of conducting practices as here given is 43.5 per cent. and the average net income from the practices in this division, taken as a whole, is \$1,424.

Experience in dealing with reports of practices, as made out by dentists, leads one to qualify the results which are obtainable at the present time. The form which is printed in Chapter Eight of this book itemizes the larger expenses of the office, but does not seek to itemize many small expenses which occur weekly, and which amount to a considerable sum at the end of the year. Nor are dentists in general in the habit of keeping books in such way that sums actually expended during the year under each of these headings can be definitely stated. Even those dentists who are more careful than the average can rarely give the exact amount of the different forms of expense during the year.

Two examples of such reports occurred in tabulating the reports in this division. One dentist with a \$2,500 gross practice reported \$240 as the total of his overhead expense and \$200 as the sum of all his other expenses for the year, giving him an expense of 18 per cent. of his gross receipts. Another dentist with a \$2,500 annual gross practice reported his expense, without remuneration, as \$2,450.

Both of these reports exhibit the merest guesswork

as to expense and are of no value whatever as a basis for estimates. It has been necessary to reject a considerable number of such reports in making up this book.

It is probable that in practices of this size, the annual expense, without remuneration, is nearly 50 per cent. of the gross receipts. This would leave an average net income of \$1,250 in a practice of \$2,500 annual gross receipts.

Dentists who have carefully recorded expenses for several years state that it is impossible to properly conduct a practice of less than \$6,000 annual gross receipts at an expense, without remuneration, of less than 50 per cent. of the receipts.

ANALYSIS OF PRACTICES

Practices, 37, 40, 41 and 43 report expense of from 24 to 27 per cent. of the gross receipts. These practices are located in Western towns having an average population of 1,300 people. The expenditures for precious metals and supplies are so small, averaging only \$224, that it seems as if the reports must be inaccurate, but it will be noticed that they are much alike. Either of two explanations may suffice. The service may consist largely of extraction, amalgam fillings, artificial plates and other forms of service which do not require very expensive materials, or the fees may be sufficiently high so that large quantities of material are not re-

quired to perform the operations. These reports seem to indicate that these dentists are entitled to an average remuneration of \$1,847, but it is believed that exhaustive and accurate reports would reduce this.

Practices 34, 35, 36, 38, 39 and 42 report expenses of from 33 to 44 per cent. of the annual gross receipts.

Of these practices No. 34 is located in a large city, No. 35 is located in an unknown town, and the others are located in towns having an average population of less than 1,000 people. The average expenditure for rent, light, heat and 'phone in the small towns average \$213 per year; in the other town and city \$336. The sums expended for precious metals and supplies are considerably larger in these practices than in those of the group above, which may indicate that the reports are more accurate, or that the fees in these practices are lower and require the purchase of more material.

In this connection it will be interesting to note that in practice No. 34, known to be located in a large city, and No. 35, believed to be located in a small city, the percentage of gross receipts expended for precious metals and supplies is less than in the four practices known to be located in small towns. This may be due to the fact that fees in the city practices are enough higher than in the small town practices to permit an equal amount of work being done with fewer purchases.

The average remuneration from the practices in this group is \$1,538, or more than \$300 less than the esti-

mated remuneration in the practices of the group above. It is doubtful just why this difference exists, but it is suggested that it may be due largely to omissions in reports of the group above.

PRACTICES NOS. 44, 45, 46 AND 47

With the reports of this group, a new column in the tabulation appears, namely, "Laboratory Bills." When the forms were designed upon which the reports of the foregoing practices were made, no provision was made for report upon this item. In later forms this item was included to represent money paid to laboratories outside of the office. The reports show that this item is important in estimating the expenses of a practice.

All these practices are located in New York City. The first distinguishing marks of these practices are the great increase in the percentage of overhead expense, the larger amount expended for laboratory work and the relatively small amount spent for supplies. The average overhead expense is \$729, the laboratory bills average \$287, while the average expenditure for supplies is only \$42. The average cost of conducting these practices, excluding remuneration, is 69 per cent. of the gross receipts, and from an annual intake of \$2,500 there remains for the dentist's remuneration only the sum of \$829 per year, or a little less than \$16 for each of fifty-two weeks of the year. These reports seem to bear out the general impression that the costs of con-

ducting an office in a large city are greater than in small places. They show that at least in these particular practices, the fees are not high enough in proportion to the expense to afford the dentist a satisfactory remuneration.

CLASS II—\$2,500 TO \$2,800 DIVISION, FOURTEEN PRACTICES

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 Weeks	Per cent. of Expense to Receipts	Present Minimum Income Hour Fee
48	\$2,528	\$3,459	\$523	.....	\$100	\$250	\$ 1,655	\$31.82	.34	\$2.43
49	2,592	3,145	1,037	\$30	95	195	1,235	23.75	.52	2.50
50	2,600	3,590	585	.....	75	75	1,865	35.86	.28	2.57
51	2,600	3,186	430	.....	200	300	1,570	32.11	.36	2.40
52	2,600	3,343	680	.....	150	200	1,565	30.09	.39	2.45
53	2,600	3,740	962	.....	300	300	1,038	19.96	.60	2.30
54	2,619	3,075	746	.....	240	480	1,153	22.17	.56	2.40
55	2,621	3,780	779	60	150	200	1,432	27.53	.45	2.40
56	2,650	5,333	949	.....	92	220	1,389	26.71	.47	2.55
57	2,670	3,650	562	.....	200	200	1,708	32.84	.36	2.50
58	2,700	3,644	866	.....	500	180	1,154	22.19	.57	2.20
59	2,700	3,715	881	.....	480	125	1,214	23.34	.55	2.30
60	2,754	3,463	765	.....	182	173	1,634	31.42	.40	2.60
61	2,732	3,250	742	.....	240	180	1,570	30.19	.42	2.50
Totals	\$36,966	\$50,373	\$10,507	\$90	\$3,004	\$3,078	\$20,182	\$389.98	.....	.....
Average	2,640	3,598	750		215	219	1,441	27.85	.45	.....
For each of 1000 income hours						\$.22	\$ 1.45			

DEDUCTIONS

The average office expense, for each of 1,000 income hours, obtained by adding the expenditures for overhead expense and supplies is 97 cents.

The average remuneration for each of 1,000 income hours is \$1.45.

The minimum fees for each of 1,000 income hours which will maintain these practices in their present condition are shown in the table.

PRACTICE NO. 50

One practice in this division stands out by itself, so far as relation of expenses and receipts are concerned. It is No. 50, which reports an expense of only 28 per cent. of the gross receipts. It is located in a town of the middle West. Either serious omissions have been made in the report of this practice, or it is conducted under conditions which minimize expense. The annual expenditure for rent, light, heat and 'phone is \$175. The expenditure for precious metals and supplies is given as \$150. It is conceivable that a practice rendering certain forms of service can be conducted at this expense, but other practices which are located in towns of this size and are at least fairly well managed, are not conducted upon an expenditure of \$12.50 per month for both supplies and precious metals. It is quite possible that this practice is an example of those cases where the dentist deceives himself as to the amount of his annual expenses, and wonders why so little money remains at the end of the year as remuneration.

Practices Nos. 48, 51, 52 and 57 record expenses varying from 35 to 39 per cent. of the annual gross receipts.

Nos. 48, 51 and 57 are located in small towns, while No. 52 is located at Omaha. The records seem to indicate that these practices are carefully managed, and that the expenditures for overhead, precious metals, and supplies are well proportioned to the size of the practice. The slightly greater expense of the city practice seems to be due to a much higher rent than in the small towns, and the recording of a larger sum for charity work. These practices average \$2,600 annual gross receipts and it appears that the average amount available for annual remuneration is \$1,649. Dentists owning practices Nos. 48, 51 and 57 probably find living in small towns upon this sum very comfortable.

Practices Nos. 55, 56, 60 and 61 report expenses ranging from 40 to 47 per cent. of the annual gross receipts. Practice No. 55 is located in Chicago, No. 56 in Milwaukee, No. 60 in a Western town of 7,000 people and No. 61 in a town of 600 people. Each of the two city practices pays more than twice as much for rent, light, heat and 'phone as the town practices, but neither of the city practices employs an assistant, while each of the small town practices does. The city practices itemize considerable sums for taxes and insurance, which the small town practices do not report. Except for the fact that practice No. 56 reports a very small sum for the purchase of precious metals, there are no other great differences between them. The average annual gross receipts of these practices are \$70 larger than in

the group above, but the average remuneration is only \$1,506, which is \$143 less than in that group. This difference is accounted for in part by the higher rents of the city practices and by the employment of assistants in the smaller town practices.

Practices Nos. 49, 53, 54, 58 and 59 report expenses ranging from 52 to 62 per cent. of the annual gross receipts. Three of these are located in middle Western cities; the locations of the other two are unknown. The high percentage of cost in these practices is due in part to a much higher expense for rent, light, heat and 'phone, which averages \$425 per year; to the much larger expenditure for precious metals; and to a somewhat larger expenditure for supplies. No one of these increases, taken alone, might be serious, but taken together they so increase the expense that although these five practices average about the same annual gross receipts as in the two groups of this division which are reported above, the average remuneration is only \$1,159. which is \$490 less than in the first group in this division and \$347 less than in the second group.

It is interesting to note that each of the practices known to be located in the large cities does not employ an assistant, and that each of the practices known to be located in the smaller towns does. It may be that because the other items for overhead expense are lower in a smaller city or town, dentists feel themselves better able to afford the services of assistants.

COMPARISON OF REPORTS

A study of the items of expense in the different groups in this division will be interesting and profitable to dentists who wish to carefully study the proportion of receipts and expenses in their own practices.

Here are three groups of practices having nearly the same annual amount of gross receipts but differing widely in percentages of expense. The amount available for annual remuneration decreases exactly in proportion as the ratio of expense to receipts increases. In practices Nos. 48, 51, 52 and 58 the dentists are receiving as remuneration practically \$137 for each of the twelve months of the year, while in practices Nos. 49, 53, 54, 58 and 59 the dentists are receiving only \$96 for each of the twelve months. It may be that all nine of these dentists are equally skillful but the dentists in the more successful group, financially, receive an average remuneration of \$41 per month more than the equally skillful dentists of the second group.

It may be that the greater overhead expense in practices Nos. 49, 53, 54, 58 and 59 is unavoidable, since rent, light, heat and 'phone are necessarily more expensive in large cities than in small towns. It is apparent, however, that the fees in these city practices are not in proportion to the higher expenses.

In fact, the fees appear to be lower in the city practices than in the practices in the small places, because the city practices are compelled to purchase larger

amounts of supplies and precious metals to render practically the same amount of service.

The lesson of these practices is that no detail of expenditure is too small to receive careful attention. Each reduction in expense which does not reduce efficiency is accompanied by an increase in remuneration; they indicate also that in localities where expenses are high, the fee for any given operation should be higher than in communities where expenses are low.

CLASS II—\$2,800 AND \$2,980 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 Weeks	Per Cent. of Expense to Receipts	Present Minimum Income Hour Fee
62	\$2,800	\$3,050	\$355	....	\$250	\$250	\$1,945	\$37.40	.30	\$2.55
63	2,800	3,355	816	.....	200	200	1,584	30.46	.43	2.60
64	2,800	3,739	594	.....	245	245	1,716	33.00	.38	2.55
65	2,800	3,765	815	.....	250	350	1,385	26.63	.50	2.55
66	2,800	3,445	759	.....	247	248	1,546	29.73	.44	2.55
67	2,823	3,411	617	.....	240	271	1,695	32.60	.40	2.60
68	2,840	3,363	526	.....	250	240	1,824	35.08	.36	2.60
69	2,874	4,213	541	.....	210	275	1,848	35.54	.36	2.65
70	2,950	4,199	836	.....	600	600	914	17.58	.69	2.35
71	2,980	3,353	672	.....	225	230	1,853	35.63	.38	2.75
Totals	\$28,467	\$35,893	\$6,531	.....	\$2,717	\$2,909	\$16,310	\$313.65	.....	.....
Average	2,847	3,589	653	.....	272	291	1,631	31.37	.43	.....

For each of 1000 Income hours \$.65

\$.29 \$ 1.63

DEDUCTIONS

The average office expense for each of 1,000 income hours, exclusive of precious metals, obtained by adding the overhead expense and supplies, is 94 cents.



THIS BRICKLAYER

began work at the age of 16, and by the age of 21 was earning \$30.00 per week. He gets \$1.00 per hour for overtime or for especially fine jobs on straight time. He has no overhead working expense worth mentioning and no social position to maintain.

The average remuneration for each of 1,000 annual income hours is \$1.63.

The lowest average fee per income hour, exclusive of cost of precious metals, which will maintain these practices in their present condition is, in round figures, \$2.60, or 4 1/3 cents per income minute.

Practices Nos. 62, 64, 67, 68, 69 and 71 report expenses ranging from 30 to 40 per cent. inclusive of the annual gross receipts. Several of these practices are located in small towns in the middle West. No. 71 is located in Indianapolis.

The distinguishing feature of these practices is the low overhead expense, the average being only \$566. This is \$342 per year less than the average in practices Nos. 49, 53, 54, 58 and 59, and is due in every case to small expenditures for rent, light, heat and 'phone, even the Indianapolis practice paying only \$300 per year for all of these items. The Indianapolis practice is the only one in this group which employs an assistant, and that appears to be for only part of the time.

The average expenditure for precious metals is \$236 which is \$87 less than in practices Nos. 49, 53, 54, 58 and 59. The net result of this reduction of \$429 in expense for overhead and precious metals, together with an increase of a little more than \$200 in annual gross receipts, is that the sum available for remuneration in this group of practices is larger than in the group comprising Nos. 49, 53, 54, 58 and 59, where the

average annual remuneration was \$1,159, while in this group it is \$1,794, a difference of \$635 per year, or about \$53 per month.

It is to be hoped that at some time in the future we shall have such accurate and extensive reports on the business part of practice that the quality of service rendered to the patients in different practices can be accurately determined and compared. At the present time this is impossible, and it cannot be told whether the services rendered in these practices is superior to that rendered by the practices in any other group. The reports for this group are, however, well made out and it is believed that the increase in remuneration results rather from greater attention to business details, and from profitable fees, than from a reduction in the quality of the service to fit the fees.

Practices Nos. 53, 55 and 56 report expenses ranging from 43 to 50 per cent. inclusive, of the annual gross receipts. One of these practices is located in a large middle Western city, one in a small city and one in New York City. The average overhead expense in this group is \$797, an increase of \$236, as compared with the same item in the preceding group. This increase is due in part to higher rents and in part to the employment of assistants. The expenditures for precious metals and supplies are about the same as in the preceding group. The average amount available for remuneration in this group is \$1,505, which is \$289 less than in the group

above. This difference in the remuneration corresponds very closely with the difference between the two groups in overhead expense.

Practice No. 70 is located in a small town in the middle West. It shows an operating expense of 68 per cent. of the annual gross receipts. This office probably represents an example of a desire to render a high quality of professional service, under pleasant surroundings, and of nearly complete inattention to the business details of practice. The inventory shows an expenditure of \$1,690 for furniture and equipment, which is probably unjustified in a town of 1,600 people. Two of the results of the large investment are that the depreciation will be at least \$169 per year, at which sum it is here estimated, and that if the dentist wishes to refund the investment so that he will have it back at the end of twenty years, it will be necessary for him to lay aside the sum of \$209 each year for that purpose. The sum of these items is \$378 and would necessitate that the dentist should take from the practice and lay aside 40 cents for each income hour, which will be either difficult or impossible in a practice of this size.

If the bills for precious metals and supplies are correctly reported, they show that fees in this office are entirely too low, because they require the purchase of \$1,200 worth of material to render \$2,950 worth of service. It is quite possible that this dentist is imbued with the idea of rendering to his patients the best

quality of service in his power, without regard to the amount of the fee. If this is the case, the practice is an excellent example of what befalls the dentist who pursues this course, because the amount available for remuneration is only \$914 per year, as compared with \$1,794 in the preceding group. These figures show clearly that what the patients do not pay for the dentist himself must pay for.

These figures show the effect of low fees upon the dentist all the more accurately, since it will doubtless be impossible for this dentist to lay aside \$378 a year for depreciation and refunding, and live on the \$914 which remains. If he does not provide for refunding he is bound to lose the greater part of his investment of \$4,199, whenever he ceases practice. It is possible for a dentist who has no one dependent upon him to live on this \$914 a year and lay aside the \$378, but such a course would be evidence of a far higher order of business ability than the reports from this practice indicate. If this dentist assumes the responsibility of a family, he can get along on this sum, even in a small town, only by denying the family all the luxuries of life and some of the necessities. He will probably be unable to properly educate the children; he will be unable to purchase sufficient insurance to protect the family in case of his early death, and he is likely to leave them without money resources and with only an office which will have very small sale value.

It is possible that the amounts reported as expended for the purchase of supplies and precious metals are mere estimates and are too high. The report is unsigned and it has been impossible to obtain a verification of the items.

CHAPTER ELEVEN

CLASS III PRACTICES—\$3,000 TO \$3,999 INCLUSIVE

The details of the practices in this class may be obtained from the tables. Only the practices in the \$3,000 division and the \$3,500 division will be analyzed.

CLASS III PRACTICES—\$3,000 DIVISION

DEDUCTIONS

As laboratory bills are reported in only four out of the 27 practices, it will be less accurate to determine an average expense per income hour for all the practices, than to obtain it separately for the 23 practices in which no laboratory bills are reported, and for the four which report laboratory bills.

The expense, obtained by adding the overhead expense and supply bills, exclusive of precious metals, in the 23 practices which do not report separate laboratory bills, averages 97 cents per income hour.

In the four practices which report separate laboratory bills, the expense is obtained by adding the overhead expense, the laboratory expense and the bills for supplies, and averages \$1.47 per income hour. This figure is too high, because all the laboratory bills probably contain charges for precious metals which would otherwise be purchased by the office and reported sep-

CLASS III PRACTICES—\$3,000 DIVISION, TWENTY-SEVEN PRACTICES

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration for each of 52 weeks	Per Cent. of Expense to Receipts
72	\$3,000	\$3,100	\$575	.....	\$ 60	\$120	\$ 2,245	\$43.17	.25
73	3,000	3,325	544	.....	100	200	2,156	41.46	.28
74	3,000	3,350	481	.....	150	200	2,169	41.71	.28
75	3,000	3,519	463	.....	200	200	2,137	41.10	.29
76	3,000	3,245	508	.....	200	200	2,092	40.22	.30
77	3,000	3,572	470	.....	240	250	2,040	39.23	.32
78	3,000	4,500	784	.....	120	120	1,976	38.00	.34
79	3,000	3,735	901	.....	100	100	1,899	36.52	.37
80	3,000	3,838	550	.....	350	200	1,900	36.54	.37
81	3,000	3,438	788	.....	240	180	1,792	34.46	.40
82	3,000	3,169	893	.....	150	200	1,757	33.79	.40
83	3,000	3,773	761	.....	200	300	1,739	33.41	.42
84	3,000	4,046	988	.....	100	200	1,712	32.92	.43
85	3,000	3,638	648	.....	400	200	1,752	33.69	.42
86	3,000	3,465	674	50	300	240	1,736	33.38	.42
87	3,000	.....	594	.....	250	450	1,706	32.81	.43
88	3,000	3,427	812	.....	300	200	1,688	32.46	.44
89	3,000	3,936	1,196	.....	100	50	1,654	31.81	.45
90	3,000	3,770	891	.....	250	250	1,609	30.94	.46
91	3,000	3,425	1,031	.....	180	180	1,609	30.94	.46
92	3,000	3,559	817	.....	300	300	1,609	30.94	.46
93	3,000	3,101	721	.....	200	500	1,583	30.41	.47
94	3,000	3,163	971	.....	200	200	1,579	30.37	.47
95	3,000	3,688	869	240	250	500	1,579	30.37	.47
96	3,000	3,563	814	800	30	60	1,381	26.56	.51
97	3,000	3,310	1,072	1,000	.....	60	1,296	24.92	.57
98	3,000	4,357	1,077	40	200	500	868	16.69	.71
Total Average	\$81,000 3,000	\$93,012 3,444.89	\$20,893 773.67	\$2,130 78.89	\$5,170 191.51	\$5,970 221.11	\$46,837 1,734.34	\$900.69 33.36	......42

\$1.75

\$.22

\$.77

For each of 1,000 annual income hours

arately. Practice No. 97 includes the precious metals bill in the laboratory bills.

The average annual remuneration in the 23 practices not reporting separate laboratory bills is \$1,828. In the 4 practices reporting laboratory bills, it is \$1,764. The records do not show whether the reports of the other 23 practices should have reported laboratory bills, or are relatively correct as rendered.

The lowest fee per income hour which will maintain the 23 practices not reporting separate laboratory bills in their present condition is \$2.80. Operations requiring fractional parts of an income hour should be estimated at 5 cents per income minute.

The lowest fee per income hour which will maintain the 4 practices reporting separate laboratory bills in their present condition is \$2.83. Operations requiring fractional parts of an income hour should be estimated at 5 cents per income minute.

Practices Nos. 72, 73, 74, 75 and 76 report expenses of from 25 per cent. of the annual gross receipts in practice No. 72 to 30 per cent. in No. 76.

Four of these practices are located in small towns and report very low overhead expense. The expenditures for rent, light, heat and telephone average only \$200 per year. The expenditures for precious metals and supplies seem to be well proportioned to the annual gross receipts, averaging \$362 per year. In comparison with a number of practices already reported, this

would seem to indicate that the fees in these practices are fairly profitable, and do not require the purchase of great amounts of material.

The reports of these practices are incomplete in some of the less important expenses, and to this extent corrections will increase the expenses and decrease the remuneration, but even when allowances for these items have been made the expenses for conducting the practices are very low.

Practice No. 72 is located in a large city. The reports indicate that the expenses for rent, light, heat and telephone have been carefully recorded, but it appears probable that the other items are largely guesswork, and it is possible that if the expenses were correctly reported this practice could not be included in this group. It is not believed that a practice of this size can be conducted upon an expenditure of \$15 per month for precious metals and supplies.

The reports, as rendered, indicate an average annual remuneration of \$2,142, which is very high for practices with annual gross receipts of only \$3,000.

Practices Nos. 77, 78, 79 and 80 report expenses of more than 30 per cent. and less than 40 per cent. of the annual gross receipts.

Practice No. 77 is located in a town of less than 1,000 people, No. 78 in a city of about 20,000, No. 79 in a town of 7,000, and No. 80 in the city of Indianapolis. The average expenditure for rent, light, heat and telephone

is \$221 and for precious metals and supplies, \$370. It is by no means certain that the expenditures for precious metals and supplies are correctly reported in all these practices, since in No. 77 they total only \$200 per year, while in No. 80 they amount to \$550. Even with the most careful management, it is doubtful whether a practice of \$3,000 annual gross receipts can be maintained in a town of 7,000 people upon a total expenditure of \$17 per month for precious metals and supplies. The greater expenditures in practices Nos. 78, 79 and 80 may indicate either that the record of expenditures has been more accurately kept, or that the fees are relatively low and require the purchase of large amounts of material to permit the service.

The reports indicate that the average annual remuneration in this group is \$1,968.

Practices Nos. 81 to 94 inclusive report expenses ranging from 40 per cent. of the annual gross receipts in practice No. 81, to 48 per cent. in practice No. 94. Practices Nos. 81, 84, 85, 87, 88, 90, 91 and 92 are located in small towns. Practice No. 89 is located in a town of 7,500 people. Nos. 82, 83, 86, 93 and 94 are located in large cities. If these practices be grouped as per the numbers just given, the average of expenses in the small town practices is $43 \frac{7}{10}$ per cent. of the annual receipts, and in the cities it is 44 per cent., so that it is evident that the differences in expense between different practices is not wholly a matter of location.

The percentage of expense to receipts in the town practices, including No. 89, is increased by the employment of assistants in practices Nos. 81, 88, 89, 90 and 92. The average payment for an assistant is only \$270 per year, but this is 9 per cent. of the annual gross receipts. None of the city practices employs an assistant. If the payment for an assistant were deducted from the expenses in the small town practices, the expenses would then average $34 \frac{7}{10}$ per cent. of the annual gross receipts, as compared with an expense of 44 per cent. in the city practices which employ no assistants.

The average expenses for rent, light, heat and telephone in the small town practices are \$215 per year, while the same expenses in the city practices average \$410. The average expenditures for precious metals and supplies in the town practices are \$557 per year, and the similar expenses in the practices, including the laboratory bills reported in practices Nos. 86 and 94, average \$530 per year.

Wide differences in the expenditures for precious metals and supplies are shown in these reports, ranging from a total expenditure of \$150 per year in Practice No. 89, which report is probably a mere guess, and incorrect at that, to \$840 per year, or 25 per cent. of the gross receipts, in practice No. 91, which report may be a guess at the opposite extreme to that of No. 89. If the report of No. 91 is correct, it indicates either unintelligent buying or fees which are so low as to require

the purchase of large amounts of material. In practice No. 94 the amount reported for the purchase of supplies is doubtless too low, but the sum of the expenditures for laboratory bills, precious metals and supplies in this practice is not far below the average in this group. The average annual remuneration in the small town practices is \$1,679 per year and in the city practices \$1,675. This is equal to an average remuneration of practically \$32 per week, which is \$2 more than the average weekly wage of a union bricklayer.

Practices Nos. 95, 96, 97 and 98 report expenses of more than 50 per cent. of the annual gross receipts.

Practice No. 95 is located in a town of 1,600 people and has an expense for rent, light, heat and telephone of only \$215 per year, but it employs an assistant at \$300 per year, and the expenditures for supplies are \$500, or one-sixth of the gross receipts. The question as to when the employment of an assistant is justified is affected by many considerations, one of which is the amount of service rendered to earn the annual gross receipts. The relatively large sum spent in this practice for precious metals and supplies, a sum equal to one quarter of the gross receipts, may indicate low fees, which would necessitate a great amount of service for the dentist and makes the services of an assistant valuable. This practice might be greatly benefited by a recognition of the costs which are reducing the remuneration and a comparison of the fees habitually

received, with his costs as summarized on the form in Chapter Eight.

Practice No. 96 is located in New York City and reports expenses equal to 57 per cent. of the annual gross receipts. More than 25 per cent. of the annual gross receipts are expended for laboratory bills. The other items are moderate and it is likely that some of them are underestimated. The expense for laboratory bills is greatly reducing the remuneration in this practice.

Practice No. 97 is located in New York City and like No. 96 reports a large expenditure for laboratory bills, in this case one third of the annual gross receipts. This practice reports expenditures of \$640 for rent, light, heat and telephone, but very moderate expenditures in all other particulars. The sum of the expenditures mentioned is equal to more than half the annual gross receipts and after the other items of expense are allowed for, only \$866 remains as annual remuneration.

Practice No. 98 is located in a town of 700 people, in Texas. All the expenditures seem to be moderate except those for precious metals and supplies, which total nearly one quarter the annual gross receipts. The wisdom of employing an assistant, when the dentist's remuneration is not enough to permit a comfortable living, may be seriously questioned. The amount available for remuneration in this practice is only \$757 per year, or a trifle less than \$15 per week.

CLASS III PRACTICES

115

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration for each of 52 weeks	Per Cent. of Expense to Receipts
99	\$ 3,098	\$ 4,160	\$ 909	.....	\$ 105	\$ 165	\$ 1,919	\$ 36.90	.38
100	3,100	3,255	390	.....	150	350	2,210	42.50	.29
101	3,100	3,565	722	.....	500	500	1,378	26.50	.56
102	3,124	3,575	1,059	.....	188	266	1,611	30.98	.48
103	3,200	3,690	720	.....	180	180	2,120	40.77	.34
104	3,250	3,739	840	.....	300	180	1,930	37.11	.41
105	3,240	3,416	650	.....	300	192	2,098	40.35	.35
106	3,250	3,343	546	.....	350	300	2,054	39.50	.37
107	3,255	3,489	955	.....	250	200	1,850	35.58	.43
108	3,300	3,100	480	.....	400	200	2,220	42.69	.33
109	3,300	3,264	468	.....	175	375	2,282	43.88	.31
110	3,300	3,546	1,417	.....	360	120	1,403	26.98	.57
111	3,350	3,660	599	.....	400	500	1,851	35.60	.45
112	3,360	3,673	781	.....	360	360	1,859	35.75	.45
113	3,360	3,773	923	\$200	200	400	1,637	31.48	.51
114	3,400	3,235	427	.....	150	100	2,723	52.37	.20
115	3,400	3,958	642	.....	300	200	2,258	43.42	.34
116	3,425	3,412	789	115	238	160	2,123	40.83	.38
117	3,460	3,814	898	180	175	240	1,967	37.83	.43
Totals	\$62,272	\$67,667	\$14,215	\$495	\$5,081	\$4,988	\$37,493	\$721.02	.40
Averages	3,277.47	3,561.42	748.16	26.05	267.42	262.53	1,973.32	37.95	

For each of 1,000 annual income hours

.75

.26

.26

1.97

CLASS III PRACTICES—\$3,500 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration for each of 52 weeks	Per Cent. of Expense to Receipts
118	\$ 3,500	\$ 3,025	\$ 477	.....	\$ 225	\$ 300	\$ 2,498	\$ 48.04	.28
119	3,500	3,346	581	.....	200	250	2,469	47.48	.29
120	3,500	3,566	749	.....	150	150	2,451	47.14	.30
121	3,500	3,305	886	.....	180	240	2,194	42.19	.37
122	3,500	3,440	705	\$ 300	100	200	2,195	42.21	.37
123	3,500	3,920	840	.....	200	360	2,100	40.39	.40
124	3,500	3,778	971	.....	200	350	1,979	38.06	.43
125	3,500	3,702	1,153	.....	200	300	1,847	35.52	.47
126	3,500	3,759	887	.....	250	500	1,863	35.83	.47
127	3,500	3,625	992	600	.....	100	1,808	34.77	.48
128	3,500	3,739	1,045	.....	500	200	1,755	33.75	.50
129	3,500	3,755	1,036	300	250	200	1,714	32.96	.51
130	3,500	3,545	820	500	500	180	1,500	28.85	.57
131	3,500	3,702	1,289	.....	600	120	1,491	28.67	.57
132	3,500	4,035	1,557	.....	200	450	1,293	24.87	.63
Totals	\$52,500	\$54,242	\$13,988	\$1,700	\$3,755	\$3,900	\$29,157	\$560.73	....
Average	3,500	3,616	932	113	250	260	1,943	37.38	.44

For each of 1,000 annual

income hours

\$.93

\$.42

\$.26

\$1.94

DEDUCTIONS

The average annual expense in the 11 practices not reporting outside laboratory bills, obtained by adding the overhead expense and supply bills, is \$1,237, or \$1.24 for each of 1,000 income hours.

The average annual remuneration in these practices is \$1,999, or \$2 for each of 1,000 income hours.

The lowest average fee for each of 1,000 income hours, exclusive of the cost of precious metals, which

will maintain these practices in their present condition, is \$3.25.

The average annual expense in the four practices reporting outside laboratory bills is \$1,483, or \$1.48 for each of 1,000 income hours. This figure is too high, because the reports in practice No. 127 do not separate the expenditures for precious metals from those for laboratory bills.

The average remuneration in these practices is \$1,804, or \$1.80 for each of 1,000 income hours.

The lowest average fee for each of 1,000 income hours, exclusive of the cost of precious metals, which will maintain these practices in their present condition is \$3.28.

ANALYSIS OF PRACTICES

Practices Nos. 118, 119 and 120 show expenses of less than 30 per cent. of the annual gross receipts. Nos. 118 and 119 are located in small towns and record very small overhead expense. No assistants are employed; there seem to be few outside expenses. The expenditures for precious metals and supplies seem to be well proportioned to the gross receipts.

Practice No. 120 is located in a large city and reports much higher overhead expense than either Nos. 118 or 119, but much lower expenditures for precious metals and supplies. The general character of this report indicates that it is much less carefully made than those for practices Nos. 118 and 119. Fees for dental operations

in the city where this practice is located are not particularly high, and it is not probable that they are higher in this practice than in the average. The expenditures for precious metals and supplies are probably, therefore, inaccurately reported, and upon an exact accounting would be likely to be found much larger than here given.

The reports indicate that practices Nos. 118 and 119 afford an average annual remuneration of \$2,484. The rather inaccurate report for practice No. 120 shows practically the same remuneration, but it is believed that this would be materially reduced if the report were more carefully made.

Practices Nos. 121 and 122 are located in large cities and report expenses of 37 per cent. of the annual gross receipts.

The average overhead expense in these practices is higher than in practices Nos. 118, 119 and 120, and the expenditures for precious metals and supplies, including laboratory bills, reported in No. 122 average higher. It appears from this report that the fees in the city practices are no higher, if, indeed, they are as high as in the small town practices. The average remuneration in these practices is \$2,195 per year, or \$288 less than in Nos. 118, 119 and 120.

Practices Nos. 123, 124, 125, 126 and 127 show expenses of from 40 to 47 per cent. of the annual gross receipts.

All these practices, except No. 126, are located in large cities. They show average overhead expenses of \$968, which is much higher than in either of the preceding groups in this division. The average expenditure for precious metals and supplies, including the laboratory bills reported in No. 127, is \$612, which is \$140 higher than the average of the two preceding groups. These figures seem to indicate that the fees are much lower for the same kind of service in these practices than in practices Nos. 118 to 122, inclusive, or that the kind of service rendered in greatest amount differs in such way as to require the purchase of greater amounts of material or equal quantities of higher priced material. This might easily be the case if the service most frequently rendered in practices Nos. 118 to 122, inclusive, consists largely of extractions, amalgam fillings, plates, etc., and the service in practices Nos. 123 to 127, inclusive, consists largely of gold inlays, crown and bridge work.

The relations between expenses and remuneration are shown in the fact that while the remuneration in practices Nos. 118, 119 and 120 averages \$2,480, and in practices Nos. 121 and 122 averages \$2,195, the practices of this group show an average remuneration of only \$1,919 per year.

Practices Nos. 128, 129, 130, 131 and 132 show expenses ranging from 50 to 62 per cent. of the annual gross receipts.

Numbers 128 and 130 are located in New York City, 129 in Chicago, 131 in Omaha and 132 in Indianapolis. Numbers 131 and 132 employ assistants at an average weekly wage of \$7. The average overhead expense in this group is \$1,149, which is nearly twice as much as in the first group in this division. If the sum of the laboratory bills reported in Numbers 129 and 130 be added to the expenses for precious metals and supplies, the average expenditure for these items is \$800 per year. With greatly increased expense for overhead and precious metals and supplies, and the same annual gross receipts, it is natural that the remuneration in this group should be much less than in either of the groups above. The average remuneration for these practices is \$1,560, which is \$924 per year less than in the first group in this division and \$635 less than in the second group.

These reports show much care in the preparation and are believed to be fairly accurate. They show that city practices are often much more expensive to conduct than practices in small towns, and that the extra expense is by no means always made up by higher fees for similar service. If the expenditure for precious metals and supplies in this group be compared with the smaller expenditures for the same items in the first group in this division, it will be seen that the service most frequently rendered in the city practices is of a kind much more expensive to the dentist, and that the

CLASS III PRACTICES—\$3,540 TO \$3,978 DIVISION, TWENTY PRACTICES

CLASS III PRACTICES

121

Practice Number	Gross	Investment	Overhead Expense	Laboratory	Precious Metals	Other Supplies	Annual Remuneration	Remuneration for each of 52 Weeks	Per Cent. of Expense to Receipts
133	\$3,540	\$3,543	\$ 598	.....	\$150	\$150	\$ 2,612	\$ 50.81	.25
134	3,560	3,460	429	.....	400	400	2,531	48.67	.29
135	3,600	3,784	984	.....	250	400	1,966	37.81	.45
136	3,600	3,455	705	.....	300	150	2,445	47.02	.32
137	3,600	3,315	502	.....	100	350	2,648	50.92	.26
138	3,600	3,670	779	.....	600	50	2,171	41.75	.39
139	3,600	3,505	945	.....	300	250	2,105	40.48	.41
140	3,600	3,625	551	.....	400	300	2,349	45.17	.35
141	3,600	4,107	1,646	\$ 90	184	353	1,327	25.52	.63
142	3,619	3,378	947	.....	176	298	2,198	42.27	.39
143	3,700	3,512	562	.....	182	301	2,655	51.06	.28
144	3,700	4,180	2,078	360	360	240	662	12.73	.82
145	3,700	3,003	1,013	30	500	75	2,082	40.04	.43
146	3,775	3,880	680	.....	325	575	2,195	42.21	.42
147	3,800	3,580	1,226	180	175	175	2,044	39.31	.46
148	3,900	3,812	976	.....	150	100	2,674	51.42	.31
149	3,919	3,400	767	386	152	288	2,326	44.73	.40
150	3,928	3,500	666	.....	270	494	2,498	48.04	.36
151	3,961	4,405	862	.....	200	200	2,699	51.90	.32
152	3,978	3,741	870	.....	388	880	1,840	35.38	.53
Totals	\$74,280	\$73,155	\$17,786	\$1,046	\$5,362	\$6,029	\$44,057	\$847.24	.....
Average	3,714	3,657.75	889.30	52.30	268.10	301.45	2,202.85	42.36	.41
For each of 1,000 annual income hours							\$.30	\$2.20	

fees are lower. This may perhaps be explained by a greater tendency to crown and bridge work in city practices, and failure to receive fees commensurate with the increased cost of such service.

CLASS III PRACTICES—\$3,540 TO \$3,978 DIVISION

DEDUCTIONS

The average annual expense, exclusive of precious metals, obtained by adding the expenditures for overhead expense and supplies, is \$1,196, or \$1.19 for each of 1,000 income hours.

The average remuneration is \$2,202, or \$2.20 for each of 1,000 income hours.

The lowest average fee for each of 1,000 income hours, exclusive of the cost of precious metals, which will maintain these practices in their present condition, is \$3.40, or 6 cents per income minute.

CHAPTER TWELVE

CLASS IV PRACTICES—\$4,000 TO \$4,999

\$4,000 DIVISION, THIRTEEN PRACTICES

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per Cent. of Expense to Receipts
153	\$4,000	\$3,470	\$607	.....	\$190	\$226	\$2,977	\$57.25	.26
154	4,000	3,905	605	.....	300	200	2,895	55.67	.28
155	4,000	2,854	1,003	\$100	72	122	2,703	51.98	.32
156	4,000	4,445	1,395	.....	180	350	2,075	39.90	.48
157	4,000	3,910	1,206	.....	200	300	2,294	44.11	.43
158	4,000	4,098	1,227	600	.....	100	2,073	39.86	.48
159	4,000	3,808	1,178	480	300	150	1,892	36.38	.53
160	4,000	3,812	1,231	110	150	600	1,909	36.71	.52
161	4,000	4,200	1,705	500	100	75	1,620	31.16	.59
162	4,000	3,410	776	480	180	180	2,384	45.84	.40
163	4,000	3,455	1,401	300	360	480	1,459	28.06	.63
164	4,000	3,700	1,574	.....	575	575	1,276	24.54	.68
165	4,000	3,505	2,576	.....	300	300	824	15.85	.79
Totals	\$52,000	\$48,678	\$16,484	\$2,570	\$2,907	\$3,658	\$26,381	\$507.31	....
Average	4,000	3,744	1,268	197	223	281	2,029.31	39.03	.49

For each of 1,000 annual income hours \$1.27 \$.20 \$.22 \$.28 \$2.03

DEDUCTIONS

In the seven practices reporting separate laboratory bills, the average annual expense, exclusive of the cost of precious metals, which is obtained by adding the overhead expense, the laboratory bills and the bills for

supplies, is \$1,821, or \$1.82 for each of 1,000 income hours.

In these practices the average annual remuneration is \$2,006, or \$2.00 for each of 1,000 income hours.

The lowest fee for each of 1,000 income hours, which will maintain these practices in their present conditions is \$3.82. Operations requiring small fractions of an hour should be figured at $6\frac{1}{2}$ cents per income minute.

In the six practices which do not report outside laboratory bills, the average annual expense, exclusive of precious metals, obtained by adding the overhead expense and the supply bills, is \$1,652, or \$1.65 for each of 1,000 income hours.

In these practices the average annual remuneration is \$2,060, or \$2.06 for each of 1,000 income hours.

The lowest average fee for each of 1,000 income hours, exclusive of precious metals, which will keep these practices in their present conditions is \$3.70.

Practices Nos. 153, 154 and 155 report annual expenses, exclusive of remuneration and precious metals, of less than 33 per cent.

Practice No. 153 is located in a city of 50,000 people. The dentist conducting this practice shares offices with another dentist, and pays only half of the overhead expense, so that his share of the rent, light, heat and telephone is only \$200 per year. No assistant is employed. A letter accompanying this report states that as a result of a business awakening on the part of this

dentist, a record of expenditures has been carefully kept for a year, and that this report is a transcript of that record. The results of such attention to the business side of practice is certainly very satisfactory, because nearly \$3,000 per year remains as remuneration.

Practice No. 154 is located in a city of 150,000 people. There is reason to believe that the items in this report are much less carefully recorded than in No. 153.

Practice No. 155 is located in New York City. It reports much greater overhead expense than Nos. 153 and 154, due in part to higher charges for rent, light, heat and telephone, and in part to the employment of an assistant at \$300 per year. It reports lower total expenditures for laboratory bills, precious metals and supplies than Nos. 153 and 154. This is believed to be partly due to the fact that this dentist has had business training and understands the relation between expense and receipts, and partly because he is located in a neighborhood where poor people do not go, and because part of the services in this practice consist of orthodontia.

Practices Nos. 156, 157, 158 and 159. Two of these practices are located in New York City, one in Syracuse, N. Y., one in Omaha. All the items appear to be well proportioned to the conduct of practices of this amount in cities of these respective sizes, and no special comment appears to be necessary.

Practices Nos. 160, 161 and 162 report expenses of from 51 to 59 per cent. of the annual gross receipts.

These are all city practices. They report average expenditures of more than \$650 for rent, light, heat and telephone, and Nos. 161 and 162 employ assistants at an average annual wage of \$350. All these practices send work to outside laboratories, and report laboratory bills averaging \$353. In practice No. 161 the expenditure for supplies is \$600, which seems to be very high, while in No. 162 the expenditure for supplies, \$75, seems too low to be accurate.

The relation between expense and remuneration is shown by comparison of this group, in which the remuneration is \$1,626 per year, with practices Nos. 153, 154 and 155, in which the average annual remuneration is \$2,858. It is evident that the fees in practices Nos. 160, 161 and 162 are not as high, in proportion to the expense of conducting the practice, as in practices Nos. 153, 154 and 155.

Practices Nos. 163, 164 and 165 report expenditures of from 61 to 79 per cent. of the annual gross receipts.

All these practices are located in New York City. They report average expenditures of \$600 per year for rent, light, heat and telephone. They report average expenditures for precious metals and supplies as \$963, including the laboratory bills in practice No. 163.

The recorded expense in Practice No. 165 is greatly increased by an item at the foot of the report which reads, "All expenses not included above, \$1,588." No explanation as to what constitutes this item of expense

is given. It is possible that some items of personal expenses are included. It is to be hoped so, since the addition of this item reduces the annual remuneration in this practice to \$824.

CLASS IV PRACTICES—\$4,150 TO \$4,385 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per Cent. of Expense to Receipts
166	\$1,150	\$6,850	\$1,031	\$68	\$150	\$750	\$2,151	\$41.36	.48
167	4,177	3,418	421	50	150	500	3,056	58.77	.26
168	4,215	3,710	656	45	504	.....	3,010	57.88	.28
169	4,260	3,530	563	250	295	170	2,982	57.35	.30
170	4,278	3,766	712	.....	200	300	3,066	58.96	.28
171	4,300	3,590	1,087	.....	960	180	2,073	39.86	.51
172	4,385	5,073	1,638	1,500	150	150	947	18.21	.78
Totals	\$29,765	\$29,937	\$6,108	\$1,913	\$2,409	\$2,050	\$17,285	\$332.39	...
Average	4,252	4,277	872	273	344	293	2,469	47.48	.42

For each of 1,000 annual
income hours

\$.87 \$.27 \$.34 \$.29 \$2.47

DEDUCTIONS

The average annual expense in the five practices reporting outside laboratory bills, exclusive of precious metals, is obtained by adding the expenditures for overhead expense, laboratory bills and supplies, and is \$1,558, or \$1.56 for each of 1,000 annual income hours.

The average remuneration in these practices is \$2,429, or \$2.43 for each of 1,000 annual income hours.

The lowest average fee, exclusive of the cost of pre-

cious metals, that will maintain these practices in their present condition is, in round figures, \$4.00 for each of 1,000 annual income hours.

In the two practices not reporting outside laboratory bills the annual expense, exclusive of precious metals, is obtained by adding the expenditures for overhead expense and supplies and is \$1,140, or \$1.14 for each of 1,000 annual income hours.

The annual remuneration in these practices is \$3,069, or \$3.06 for each of 1,000 annual income hours.

The lowest fee, exclusive of precious metals, which will maintain these practices in their present condition is \$4.20 for each of 1,000 annual income hours, or 7 cents for each income minute.

CLASS IV PRACTICES—\$4,500 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
173	\$4,500	\$3,721	\$724	.....	\$200	\$200	\$3,376	\$64.92	.25
174	4,500	3,669	836	.....	300	420	2,944	56.61	.34
175	4,500	3,437	1,035	.....	700	75	2,690	51.73	.40
176	4,500	4,190	954	.....	1,200	180	2,166	41.65	.51
177	4,500	4,088	1,473	1,200	50	120	1,657	31.86	.63
178	4,500	3,849	1,412	936	780	208	1,164	22.38	.74
Totals	\$27,000	\$22,954	\$6,434	\$2,136	\$3,230	\$1,203	\$13,997	\$269.15	....
Average	4,500	3,825	1,072	356	538	200	2,333	44.86	.48

For each of 1,000 annual

income hours \$1.07

\$54

\$20

\$2.33

DEDUCTIONS

In four practices in this division not reporting separate laboratory bills, the average annual expenditures, exclusive of precious metals, obtained by adding the overhead expense and the bills for supplies, is \$1,106, and the average annual remuneration is \$2,794.

The lowest fee for each of 1,000 income hours which will maintain these practices in their present condition is \$3.90, exclusive of the cost of precious metals.

In two practices reporting separate laboratory bills the average annual expense, exclusive of precious metals, obtained by adding the expenditures for overhead expense, laboratory bills and supplies, is \$2,675, and the remuneration is \$1,411. As part of the expenditures for precious metals and supplies is necessarily included in the laboratory bills, this estimate is incorrect to this extent. This, however, does not affect the accuracy of the amounts reported as annual remuneration.

The lowest fee for each of 1,000 annual income hours, exclusive of the cost of precious metals, which will maintain these practices in their present condition is \$4.08.

Practices Nos. 177 and 178 report expenses of 63 and 74 per cent. of the annual gross receipts.

They are the only practices in this division requiring special comment. The average expenditure for rent, light, heat and telephone in these practices is \$950 per

year. The report from practice No. 177 is carefully made out and records expenditures of a little more than 50 per cent. of the annual gross receipts for rent, light, heat, telephone, laboratory bills, precious metals and supplies. The addition of the other unavoidable expenditures raises the expense to 63 per cent. of the annual gross receipts, and reduces the annual remuneration to \$1,697. It seems evident that the fees in this practice are low for the quality of service, and that the dentist is working very hard for a comparatively small remuneration.

In practice No. 178 the expenditure for rent, light, heat, telephone, laboratory bills, precious metals and supplies is 62 per cent. of the annual gross receipts. Other recorded expenditures increase the total expense to 74 per cent, and reduce the annual remuneration to \$1,154. It is probable that fees are too low in this practice, and it is evident that the dentist receives very small remuneration in proportion to the amount of his labor.

Practices Nos. 177 and 178 are examples of practices in which the annual gross receipts are sufficient to afford the dentist satisfactory remuneration if the fees are proportioned to the expenses. The average annual remuneration in these two practices is \$1,411, which contrasts unfavorably with the average of \$2,794 in practices Nos. 173, 174, 175 and 176.

CLASS IV PRACTICES—\$4,700 TO \$4,800 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
179	\$1,700	\$4,555	\$1,669	.....	\$400	\$600	\$2,031	\$39.05	.56
180	4,800	3,650	972	.....	500	400	2,928	56.30	.39
Totals	\$9,500	\$8,205	\$2,641	.....	\$900	\$1,000	\$4,959	\$95.36	....
Average	4,750	4,102	1,340	.....	450	500	2,479	47.67	.48

For each of 1,000 annual

income hours \$1.34

\$.45

\$.50

\$2.48

The details of these practices can be determined from the table.

CHAPTER THIRTEEN

CLASSES V AND VI PRACTICES, \$5,000 TO \$6,999 INCLUSIVE. \$5,000 DIVISION, ELEVEN PRACTICES

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
181	\$5,000	\$3,709	\$1,044	.....	\$720	.....	\$3,236	\$62.23	.35
182	5,039	4,131	1,132	.....	147	\$600	3,170	60.96	.37
183	5,000	4,340	1,015	\$50	750	200	2,985	57.40	.40
184	5,000	3,609	1,078	720	350	35	2,837	54.56	.43
185	5,000	4,107	1,455	150	250	300	2,845	54.71	.43
186	5,000	3,495	1,205	600	400	30	2,765	53.17	.45
187	5,038	5,819	1,437	25	248	914	2,414	46.42	.52
188	5,000	4,662	2,040	300	500	60	2,100	40.38	.58
189	5,000	3,890	2,190	900	600	200	2,028	39.00	.59
190	5,000	5,940	1,857	650	75	600	1,818	34.96	.63
191	5,000	4,055	2,278	500	300	300	1,622	31.19	.67
Totals	\$55,077	\$47,757	\$16,721	\$3,895	\$4,340	\$3,229	\$26,892	\$507.14	....
Average	5,007	4,341	1,520	354	395	293	2,445	47.01	.51

For each of 1,000 annual

income hours

\$1.52

\$.35

\$.39

\$.29

\$2.44

DEDUCTIONS

The average annual expense in these practices, exclusive of precious metals, is obtained by adding the overhead expense and the laboratory and supply bills. It amounts to \$2,167, or \$2.16 for each of 1,000 income hours.

The average annual remuneration is \$2,445, or \$2.44 for each of 1,000 income hours.

The lowest fee for each of 1,000 annual income hours, exclusive of the cost of precious metals, which will maintain these practices in their present condition is \$4.60.

REMARKS

Practice No. 181 is located in a town of about 7,000 people in Virginia; No. 182 is located in a town of 9,000 in Nebraska. No. 187 is located in a Missouri town of 10,000 people. The other practices in this division are located in New York City. It will be noted that the Virginia and Nebraska practices report no outside laboratory bills, and that the Missouri practice reports only \$25 annually.

In practices Nos. 181 to 187 inclusive, the overhead expense is not excessive, averaging only \$1,200 per year. The laboratory bills in three of these practices are small. In the remaining four practices the overhead expense is very heavy and the laboratory bills average nearly \$600 per year. The sum of the average expenditures for these three items is \$1,150, or nearly one-fourth of the annual receipts. The expenditures indicate that the average fees in these practices are not high, and that the relatively high gross receipts are the result of rendering a great deal of service at moderate fees.

CLASS V PRACTICES—\$5,120 TO \$5,962 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
192	\$5,120	\$5,140	\$2,125	.....	\$300	\$600	\$2,095	\$40.29	.59
193	5,200	3,964	2,130	200	200	175	2,495	47.98	.52
194	5,246	3,862	1,456	.....	300	360	3,130	60.19	.40
195	5,475	3,740	1,155	.....	130	144	4,046	77.80	.26
196	5,543	3,580	1,037	1,200	.....	75	3,231	62.13	.41
197	5,600	4,003	2,146	1,288	90	.....	2,076	39.92	.63
198	5,739	3,530	2,210	300	545	250	2,434	46.80	.57
199	5,962	3,116	1,044	800	900	.....	3,218	61.88	.46
Totals	\$43,885	\$30,935	\$13,303	\$3,788	\$2,465	\$1,604	\$22,725	.....	.....
Average	5,485	3,867	1,663	473	308	200	2,841	54.62	.48

For each of 1,000 annual

income hours

\$1.66

\$.46

\$.31

\$.20

\$2.84

DEDUCTIONS

The three practices not reporting bills to outside laboratories average \$5,280 in annual gross receipts. The total expenses, not including precious metals, obtained by adding the overhead expense and supply bills, averages \$2,013, or \$2.01 for each of 1,000 income hours per year.

The remuneration averages \$3,090, or \$3.09 for each of 1,000 annual income hours.

The lowest fee for each of 1,000 annual income hours that will maintain these practices in their present conditions is \$5.10, exclusive of the cost of precious metals.

The reports of the practices recording bills to out-

side laboratories are incomplete in important particulars. Thus No. 196 reports the purchase of no precious metals, which report must be inaccurate if the dentist makes any of his own inlays, gold fillings, etc. Nos. 197 and 199 report no expenditures for Other Supplies, and must be incorrect to that extent if the dentists owning these practices use alloy, cement, burs, broaches, strips, discs, etc. The bookkeeping system described in Chapter Nineteen will correct such errors in estimating.

The average annual gross receipts are \$5,608.

The average total expense, exclusive of precious metals, is obtained by adding the expenditures for overhead expense, laboratory bills and supplies, and is \$2,571, or \$2.57 for each of 1,000 annual income hours.

The average annual remuneration is \$2,690, or \$2.69 for each of 1,000 annual income hours.

The lowest average fee for each of 1,000 annual income hours, exclusive of precious metals, which will maintain these practices in their present conditions, is \$5.26.

While this division comprises only eight practices, they are so widely distributed, geographically, that if there is anything in location they should represent conditions in the country at large. Practice No. 192 is located in Boston, Mass., Nos. 193, 196, 197 and 198 in well-to-do sections of New York City, Nos. 194 and 195 in Indianapolis, Ind., and No. 199 in a town of 1,000 people in California.

CLASS VI PRACTICES—\$6,000 TO \$6,999 INCLUSIVE,
\$6,000 DIVISION

Practice Number	Annual Gross Receipts	Investments	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
200	\$6,000	\$3,451	\$497	...	\$400	\$200	\$4,903	\$94.28	.18
201	6,000	4,047	1,263	....	400	450	3,887	74.75	.35
202	6,000	3,650	1,433	....	500	200	3,867	74.36	.35
203	6,000	4,760	1,340	....	300	600	3,760	72.30	.37
204	6,000	6,470	1,848	\$120	180	96	3,756	72.23	.37
205	6,078	3,711	1,471	1,442	116	....	3,049	58.63	.55
206	6,000	4,300	1,415	1,800	30	60	2,695	51.82	.55
207	6,000	4,533	2,670	180	300	360	2,490	47.88	.58
Totals	\$48,078	\$34,922	\$11,937	\$3,542	\$2,226	\$1,966	\$28,407	\$546.25	3.30
Average	6,009	4,365	1,492	442	278	246	3,550	68.28	.41

For each of 1,000 annual
income hours

\$1.49 \$.44

\$.28 \$3.55

DEDUCTIONS

In the four practices not reporting bills to outside laboratories, the total expense, exclusive of precious metals, averages \$1,495 annually, or \$1.50 for each of the 1,000 annual income hours, or 66 cents less than in the first division of the Class V practices and 60 cents less than in the second division of that class.

The average annual remuneration is \$4,104, or \$4.10 for each of 1,000 annual income hours.

The lowest fee for each of 1,000 annual income hours, exclusive of precious metals, that will maintain these practices in their present condition is \$5.60.

In the four practices reporting bills to outside laboratories, the total expense, exclusive of precious metals, obtained by adding the expenditures for overhead expense, laboratory bills, and supplies is \$2,865, or \$2.86 for each of 1,000 annual income hours. This is \$1.36 more per income hour than in the four practices mentioned above and is due in part to heavier overhead expense and in part to laboratory bills averaging \$885 for each of the four practices.

The average annual remuneration in these four practices is \$2,996, or \$3 for each of 1,000 annual income hours. This is \$1,108 per year less than in the four practices not reporting separate laboratory bills.

CLASS VI PRACTICES—\$6,116 TO \$6,300 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
208	\$6,116	\$4,750	\$2,594	\$180	\$240	\$249	\$2,853	\$54.86	.53
209	6,182	3,520	918	....	235	322	4,707	90.51	.23
210	6,200	4,180	1,123	....	550	500	4,027	77.44	.35
211	6,200	5,317	2,504	441	388	....	2,867	55.13	.53
212	6,250	4,685	1,362	50	240	300	4,298	82.65	.31
213	6,288	3,985	1,283	....	376	532	4,097	78.78	.34
214	6,298	4,384	1,639	....	468	532	3,659	70.36	.41
215	6,300	3,782	1,098	....	800	250	4,152	79.84	.34
Totals	\$49,834	\$34,603	\$12,521	\$671	\$3,297	\$2,685	\$30,660	\$589.57	....
Average	6,229	4,325	1,565	84	412	335	3,832	73.69	.38

For each of 1,000 annual income hours.

\$1.56 \$.08

\$.33 \$3.83

The lowest average fee for each of 1,000 annual income hours, exclusive of the cost of precious metals, that will maintain these practices in their present conditions is \$5.86.

The details of these practices may be obtained from the table.

CLASS VI PRACTICES—\$6,500 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
216	\$6,500	\$3,990	\$1,950	\$10	\$1,500	\$500	\$2,540	\$48.84	.60
217	6,500	4,262	1,840	750	200	50	3,660	70.38	.43
218	6,500	3,957	1,629	120	300	600	3,851	74.05	.40
219	6,500	4,675	1,092	....	800	325	4,283	82.36	.34
220	6,500	4,077	1,008	....	300	100	5,092	97.92	.21
Totals	\$32,500	\$20,961	\$7,519	\$880	\$3,100	\$1,575	\$19,426	\$373.55	....
Average	6,500	4,192	1,503	176	620	315	3,885	74.71	....

For each of 1,000 annual
income hours

\$1.50 \$.18

\$.31 \$3.88

DEDUCTIONS

These five practices present great variations of expenditures and of remuneration.

The average annual expense, exclusive of precious metals, obtained by adding the expenditures for overhead expense, laboratory bills, and supplies, is \$1,994, or \$1.99 for each of 1,000 annual income hours.

The average remuneration is \$3,885, or \$3.88 for each

of 1,000 annual income hours. If, however, Practice No. 216 with its heavy expenditures and relatively low remuneration, be omitted, the average remuneration is \$4,221.

The lowest fee, exclusive of precious metals, for each of 1,000 annual income hours, which will maintain these five practices in their present condition is \$5.87.

CLASS VI PRACTICES—\$6,661 TO \$6,992 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
221	\$6,661	\$4,224	\$1,178	....	\$973	\$77	\$4,433	\$85.25	.33
222	6,750	3,500	2,225	....	....	....	4,525	87.01	.33
223	6,992	4,000	2,853	....	....	....	4,139	79.59	.40
Totals	\$20,403	\$11,724	\$6,256	....	\$973	\$77	\$13,097	\$251.85	....
Average	6,801	3,908	2,085	....	324	26	4,365	83.95	....

For each of 1,000 annual

income hours.

\$2.08

\$.03

\$4.36

These reports may be fairly accurate, but the evidence seems to indicate that the operating expenses have been merely guessed at. It is doubtful whether a practice of \$6,661 can be conducted by purchasing Other Supplies to the amount of \$6.50 per month. Nos. 222 and 223 include the Precious Metals and Other Supplies bills with the Overhead Expense, usually the result of "estimating" rather than recording.

CHAPTER FOURTEEN

CLASSES VII TO XI PRACTICES—\$7,000 TO \$11,150 IN- CLUSIVE. \$7,000 DIVISION

Practice Number	Annual Gross Receipts	Investments	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Ex- pense to Receipts
224	\$7,000	\$3,652	\$979	....	\$300	\$95	\$5,626	\$108.19	.19
225	7,000	4,532	2,151	\$200	800	180	3,669	70.56	.45
226	7,000	3,842	1,751	1,440	....	....	3,809	73.25	.46
227	7,000	4,943	2,258	900	600	500	2,742	52.73	.61
228	7,089	4,140	1,637	....	689	465	4,308	82.84	.40
Totals	\$35,089	\$21,109	\$8,776	\$2,540	\$2,389	\$1,240	\$20,144	\$387.38	...
Average	7,017	4,221	1,755	508	478	248	4,028	76.30	.42

For each of 1,000 annual

income hours

\$1.75

\$.51

\$.25

\$4.03

DEDUCTIONS

In the three practices reporting bills to outside laboratories, the annual expense is determined by adding the expenditures for overhead expense, laboratory bills, and supplies, and is \$3,126, or \$3.12 for each of 1,000 annual income hours. These figures are inaccurate to the extent that one of these practices reports no supply or precious metals bills.

The laboratory, precious metals and supply bills in practice No. 227 total \$2,000, or nearly 30 per cent. of the gross receipts. They seem to indicate that fees are lower than in any other practice in this division. As a result of these large expenditures, added to heavy overhead expense, the remuneration in this practice is much smaller than in any other practice in the group.

The average annual remuneration in these three practices is \$3,073, or \$3.07 for each of 1,000 annual income hours.

The lowest average fee, exclusive of precious metals, which will maintain these practices in their present condition is, in round figures, \$6.20 for each of 1,000 annual income hours.

In the two practices not reporting bills to outside laboratories, the annual expense, exclusive of precious metals, is obtained by adding the expenditures for overhead expense and supplies, and is \$1,588, or \$1.59 for each of 1,000 annual income hours. As the expenditures for supplies in the first of these practices is evidently wholly insufficient for a practice of this size, the figures are inaccurate to this extent.

The average annual remuneration in these two practices is \$4,967, or \$4.96 for each of 1,000 annual income hours.

The lowest fee which will maintain these practices is \$6.55 for each of 1,000 annual income hours, exclusive of the cost of precious metals.

The details of these practices may be obtained from the table.

CLASS VII PRACTICES—\$7,224 TO \$7,652 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
229	\$7,224	\$4,100	\$2,188	....	\$400	\$360	\$4,276	\$82.23	.40
230	7,304	3,740	1,356	\$56	150	150	5,592	107.54	.23
231	7,460	4,500	1,699	373	436	300	4,652	89.46	.38
232	7,504	4,222	1,979	999	143	351	4,032	77.54	.46
233	7,652	4,112	1,632	....	360	305	5,355	103.00	.30
Totals	\$37,144	\$20,674	\$8,854	\$1,428	\$1,189	\$1,466	\$23,907	\$459.77	....
Average	7,428	4,134	1,770	285	298	293	4,781	91.95	.35

For each of 1,000 annual
income hours.

\$1.77 \$.28

\$.29 \$4.78

CLASS VIII PRACTICES—\$8,000 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
234	\$8,000	\$4,650	\$1,169	....	\$500	\$250	\$6,081	\$116.94	.24
235	8,000	4,050	1,035	....	250	759	5,956	114.54	.25
236	8,000	3,835	1,924	....	300	500	5,276	101.46	.34
237	8,000	4,332	1,451	....	596	982	4,971	95.50	.38
Totals	\$32,000	\$16,867	\$5,579	....	\$1,646	\$2,491	\$22,284	\$428.44	....
Average	8,000	4,217	1,394	....	411	625	5,571	107.11	....

For each of 1,000 annual
income hours

\$1.39

\$.62 \$5.58

DEDUCTIONS

The average annual expense in these practices, exclusive of precious metals, is obtained by adding the expenditures for overhead expense and supplies, and is \$2,024, or \$2.02 for each of 1,000 annual income hours.

The average annual remuneration is \$5,571, or \$5.57 for each of 1,000 income hours.

The lowest fee, exclusive of precious metals, which will maintain these practices in their present conditions is, in round figures, \$7.60 for each of 1,000 annual income hours.

CLASS VIII PRACTICES—\$8,300 TO \$8,500 DIVISION

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
238	\$8,300	\$4,080	\$380	....	\$1,500	\$250	\$6,170	\$118.65	.25
239	8,370	6,193	2,252	\$71	420	430	5,197	99.94	.38
240	8,658	4,531	1,266	....	644	252	6,496	124.92	.25
241	8,500	5,125	2,171	180	480	480	5,189	99.79	.39
242	8,500	8,790	2,786	1,200	100	300	4,114	79.11	.51
Totals	\$42,328	\$28,719	\$8,855	\$1,451	\$3,144	\$1,712	\$27,166	\$522.41	....
Average	8,465	5,743	1,771	290	628	342	5,433	104.48	.35

For each of 1,000 annual
income hours.

\$1.77 \$2.29

\$3.34 \$5.43

The details of these practices may be obtained from the table.

CLASS IX PRACTICES—\$9,000 TO \$9,999 INCLUSIVE

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
243	\$9,000	\$4,500	\$1,715	\$200	\$813	....	\$6,272	\$120.61	.30
244	9,000	5,000	2,688	1,200	100	\$200	4,812	92.53	.46
245	9,000	5,981	....	750	200	600	7,450	89.75	.48
246	9,000	4,953	3,322	1,050	465	400	3,763	72.36	.58
247	9,703	4,558	2,301	1,028	400	200	5,774	110.04	.40
Totals	\$45,703	\$24,992	\$10,026	\$4,228	\$1,978	\$1,400	\$28,071	\$539.81	
Average	9,140	4,998	2,005	846	395	280	5,614	107.96	

For each of 1,000 annual

income hours.

\$2.00

\$.84

\$.28

\$5.61

The details of these practices can be learned from the table.

CLASS X PRACTICE—\$10,000 TO \$10,999 INCLUSIVE

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
248	\$10,200	\$5,030	\$2,579	\$300	\$450	\$200	\$6,671	\$128.29	.35

There is reason to believe that practice No. 248 is a partnership and that the remuneration is divided between two, so that each receives \$64.15 remuneration each of 52 weeks per year.

CLASS XI

Practice Number	Annual Gross Receipts	Investment	Overhead Expense	Laboratory Bills	Precious Metals	Other Supplies	Annual Remuneration	Remuneration each of 52 weeks	Per cent. of Expense to Receipts
249	\$11,000	\$4,920	\$3,750.00	\$100	\$1,200	\$6.00	\$5,350.00	\$102.88	.51
250	11,150	3,350	5,035.00	....	700	500	4,915.00	94.52	...
Totals	\$22,150	\$8,270	\$8,785.00	\$100	\$1,900	\$1,100	\$10,265.00	\$197.40	.56
Average	11,075	4,135	4,392.50	50.	950	550	5,132.50	98.70	...

For each of 1,000 annual

income hours.

\$4.39

\$.55

\$5.13

SUMMARY OF PRACTICES

The foregoing reports show 17 practices in Class I, 54 in Class II, 81 in Class III, 28 in Class IV, 19 in Class V, 24 in Class VI, 10 in Class VII, 9 in Class VIII, 5 in Class IX, 1 in Class X, 2 in Class XI. Average gross receipts, \$4,103; average annual remuneration, \$2,350.

Of these two hundred and fifty practices 163, or 65 per cent., show gross receipts ranging between \$2,000 and \$4,999. There is no way of telling whether these practices are representative of practices in general in the United States, or whether the average gross receipts and net income are both too high here. The writer's belief is that under any exhaustive system of accounting, the annual net remuneration would be little if any over \$2,000.

SUMMARY OF THE FOREGOING PRACTICES

Class or Division	Number of Practice	Total Annual Gross Receipts	Total Investment	Total Laboratory Bills	Total Overhead Expense	Total Precious Metals	Total Other Supplies	Total Remuneration
Class I	17	\$ 27,165	\$62,142	.....	\$10,273	\$2,536	\$2,664	\$11,692
\$2,000 Div.	6	12,000	24,040	.....	4,136	1,195	955	5,714
\$2,200-2,499	10	23,399	34,318	.....	5,340	1,890	2,385	13,784
\$2,500 Div.	14	35,000	41,051	\$1,150	9,193	2,801	1,941	19,915
\$2,500 2,800	14	36,966	50,373	90	10,507	3,004	3,078	20,182
\$2,800 2,980	10	28,467	35,893	.....	6,531	2,717	2,909	16,310
\$3,000 Div.	27	81,000	92,012	2,130	20,893	5,170	5,970	46,837
\$3,098-3,460	19	62,272	67,667	495	14,215	5,081	4,988	37,493
\$3,500 Div.	15	52,500	54,242	1,700	13,988	3,755	3,900	29,157
\$3,540-3,978	20	74,280	73,155	1,046	17,786	5,362	6,029	44,057
\$4,000 Div.	13	52,000	48,678	2,570	16,484	2,907	3,658	26,381
\$4,150 4,385	7	29,765	29,937	1,913	6,108	2,409	2,050	17,285
\$4,500 Div.	6	27,000	22,954	2,136	6,434	3,230	1,203	13,997
\$4,700-4,800	2	9,500	8,205	.....	2,641	900	1,000	4,959
\$5,000 Div.	11	55,077	47,757	3,895	16,721	4,340	3,229	26,892
\$5,120-5,962	8	43,885	30,935	3,788	13,203	2,465	1,604	22,725
\$6,000 Div.	8	48,078	34,922	3,542	11,937	2,226	1,966	28,407
\$6,116-6,300	8	49,834	34,603	671	12,521	3,297	2,685	30,660
\$6,500	5	32,500	20,961	880	7,519	3,100	1,575	19,426
\$6,661-6,992	3	20,403	11,724	.....	6,256	973	77	13,097
\$7,000	5	35,089	21,109	2,540	8,776	2,389	1,240	20,144
\$7,224-7,652	5	37,144	20,674	1,428	8,854	1,489	1,466	23,907
\$8,000	4	32,000	16,867	.....	5,579	1,646	2,491	22,284
\$8,300 8,500	5	42,328	28,719	1,451	8,855	3,144	1,712	27,166
Class IX	5	45,703	24,992	4,228	10,026	1,978	1,400	28,071
Class X	1	10,200	5,030	300	2,579	450	200	6,671
Class XI	2	22,150	8,270	100	8,785	1,900	1,100	10,265
Totals	250	\$1,025,705	\$952,230	\$36,053	\$266,240	\$72,354	\$83,475	\$887,578
Averages		4,103	3,809	144	1,065	290	254	2,350

CHAPTER FIFTEEN

DETERMINING OPERATION COSTS

Under the present usual conditions of unrecorded expenses and no fixed remuneration for the dentist, it is often difficult for dentists to realize that each operation costs the practice a certain amount, and to base charges on that cost. If each practice be regarded as a business with the dentist as manager with a fixed salary which is one of the regular office expenses, it may be more readily understood that each operation costs a definite sum which varies with the amount of the gross receipts, with the length of the manager's time required and with the cost of certain materials. It will be more evident also that the object of the business conduct of a practice is to enable it to pay promptly for all costs, including the manager's salary.

TWO COURSES IN FEES

The fee for any given operation which will permit prompt payment of all costs can be determined in either of two ways, but in both ways the dentist must know his income hour costs, including his remuneration. In cases where no advance estimates are made,

he needs only to charge for the time involved and the cost of any precious metals or teeth employed.

In cases where advance estimates or fees are made, the dentist needs to know with approximate accuracy how long the operation quoted upon will require, no matter what conditions, within reason, he may encounter. He may then multiply that time by the income hour rate of his practice and add the value of precious metals or teeth. In such cases, he must resort to the law of averages.

HOURLY FEES AND ADVANCED ESTIMATES

It has often been stated in print that the only form of fee fair to patients is a charge for the time required for the work. To the dentist who is working for competition-determined fees, the opportunity of charging for working time at three, four, five or more dollars per hour, in addition to precious metals costs, seems very attractive, as assuring a satisfactory net income.

This plan works well if the patronage is limited to what the dentist can handle comfortably. But if the hourly rate is known to patients, it is difficult to increase the net income because it proves difficult to change the rate and because patients sometimes adopt very exacting practices.

A certain patient who pays \$6.00 per hour enters, in a little note book, the moment he enters the chair, every moment the dentist is away from the chair, and

the moment he (the patient) leaves the chair. As he can make no record of laboratory time, his reckoning is often inaccurate and causes trouble.

In two practices in which the rate is \$6 per hour, situated in communities where the conducting cost and the living cost are high, the dentist's maximum net earnings, even with excessive labor, are limited to about \$4,000 per year. The dentists conducting these practices after several years of experience with the announced hourly rate plus materials, pronounced it undesirable and are returning to the basis of estimates based on average required times.

THE LAW OF AVERAGES

is the law that if similar objects be compared in similar respects, an average of their quality can be determined.

Thus, while no one can say how long any one or two or ten persons will live, it can be foretold that 100,000 persons will average to live to a certain age, and premiums for insurance can be safely estimated upon such an average, so that they will be profitable to an insurance company, and to the insured.

The same law of averages may be applied to estimating fees for dental services, with great advantages to patients and dentists. Patients will receive a better quality of service and will not be overcharged. Dentists will labor with the certainty of proper remuneration.

THE VALUE OF AVERAGE OPERATION TIMES

No one can tell, in advance, how long it will take to put in one or two or ten simple amalgam fillings, because different conditions may obtain in all cases. In some, a minimum of labor may be required; the cavity may be accessible and the patient tractable. In others, fissures may need careful and extensive tracing out, enamel walls may require much attention, pulps may need protection from thermal changes, the cavities may be inaccessible, the teeth hypersensitive or the patient intractable. Under any or all of these unfavorable conditions, even simple fillings (those involving only one tooth surface) may require much more time than under any or all of the favorable conditions.

With the present competition-determined fees, no fees which provide for satisfactory service and certain remuneration under all these varying conditions, can well be determined in advance. And only too often, the quality of service in difficult cases is lowered to fit an unprofitable fee or the dentist labors for unduly small pay.

If the time required to complete each of 100 simple amalgam fillings be carefully recorded, it is probable that a number of cases presenting all the favorable elements and a number presenting all the unfavorable elements will be included. Like the estimate of the 100,000 lives, the average required time may be used as a basis for estimating fees for simple amalgam fillings

on the theory that each of the simple amalgam fillings for the year will require about this average of time. The larger the number of operations used as a basis of computation, the more exact will be the average. Thus 200 or 500 operations would afford a more exact basis than 100. The fee determined upon in this way may be quoted as the minimum fee for simple amalgam fillings with relative safety, even before all the conditions of any one filling are known.

The more complicated the operation the more opportunities for delay it presents and the more important becomes a record of the time required for a large number of similar operations. The treatment and filling of a putrescent molar offers many more unfavorable possibilities than the simple amalgam filling. Accessibility to pulp chamber and canals, the form of the roots, the extent of infection and destruction of tissue, and other factors present many possible difficulties. Only by recording a sufficiently large number of such treatments and fillings to include many difficult or unfavorable cases, together with favorable cases, can a working average, in time, be obtained.

DETERMINING FEES FROM AVERAGES

To obtain the minimum hour rate in any given practice, the annual expenditures for overhead expense, laboratory bills and supplies are added to the dentist's remuneration as practice-manager, and the total is

divided by 1,000. This quotient is multiplied by the hours or fractions thereof required for any operation to determine the minimum fee for that operation. The cost of any precious metals or teeth used, is added.

Suppose that in a given practice the minimum hourly fee is \$2.30. The minimum operation fees in this practice, not involving precious metals or teeth, may be determined by multiplying the required time by \$2.30 per hour, or 4 cents per minute.* If an operation requires an hour, the fee should be not less than \$2.30. Any reduction from this sum will reduce the dentist's remuneration but not the other office expense. If the operation lasts 45 minutes, the fee must not be less than \$1.75, etc. The fees determined in this manner are only equal to the total office costs, and need not be the fees habitual in the practice; but the fees habitual in the practice should not be less than these. The habitual fees may be as much greater as the dentist can persuade the community to pay.

THE PRESENT METHOD OF DETERMINING FEES

is not usually a computation. The dentist pays the expenses of his practice and takes whatever money remains as remuneration. Fees are usually determined by tradition or competition or are advanced because patients are too numerous to be served well or because "the traffic will bear it."

* See table in Chapter Seventeen.

COMPETITION-DETERMINED FEES AND DENTISTS

Many competition-determined fees are grossly unfair to dentists. Take for instance the usual fee of 75 cents for a simple amalgam filling. The reports in Chapter Seventeen show that 473 such fillings reported by 65 dentists required an average time of 25 minutes. In the table entitled "Value of Fractional Periods of Time," in the same chapter, it is shown that a dentist with a practice of \$2,000 annual gross receipts can afford to work 25 minutes for 75 cents, but that if a dentist's gross receipts are over \$2,000 annually, he cannot afford to devote 25 minutes to a filling for which he receives only 75 cents.

If a dentist were to spend every minute of 1,000 income hours per year putting in 25-minute fillings at 75 cents each, his annual gross receipts would be \$1,800 and his remuneration about \$1,200.

If a dentist with a practice of \$4,000 annual gross receipts, devotes 25 minutes to a 75-cent filling he falls 85 cents short of the \$1.60 he needs to receive for that length of time to maintain the practice on a \$4,000 basis.

What is the answer? That if a dentist with a \$4,000 gross practice can get only 75 cents for a simple amalgam filling, he can afford to devote to it only 12 minutes. If it be claimed that the average reported time is greater than is required by such fillings, the reply is that many of these fillings are reported by dentists

known to the writer to be of better than average ability and at least average speed. It is possible to disprove this average time only by establishing a more accurate average for at least an equal number of fillings.

The competition-determined fees often bear no relation to the cost of good work to the dentist, and if he renders a good quality of service they limit his remuneration to barely a living wage.

COMPETITION-DETERMINED FEES AND PATIENTS

Competition-determined fees are often, perhaps usually, unfair and injurious to patients. There is, of course, a class of patients whose means are so limited that their first thought in connection with dental service is the amount of the cost. It may be that such people form a minority of the whole population, though not a minority in certain localities. The reports in the foregoing pages show that carpenters, plumbers, bricklayers, etc., are as well paid as many dentists and can afford to pay well for limited dental operations.

Then comes the great middle class of people, who earn from \$2,500 to \$10,000 per year. Many of these people have been taught by unbusinesslike dentists to think of the fee first.

The competition-determined fees are very unfair to any patient if they lead to the acceptance of less than a good quality of service, when the patient could afford fair remuneration for good work.

Take any of several instances. Dr. B has a \$3,500 gross practice. Mr. X presents for a simple amalgam filling and a molar crown. Dr. B should devote 25 minutes to the filling and receive \$1.40. He should devote 30 minutes to the preparation of the tooth to be crowned (no treatment) and 1 hour 25 minutes to shaping, making and setting the crown. For this he should receive \$6.20 plus \$1 for gold, total \$7.20. Competition induces him to accept 75 cents for the filling and \$5 for the crown, complete. He can therefore devote only 15 minutes to the filling. If it is an average cavity he can do the work only 60 per cent. as well as he should, and the patient is exposed to unjustified and unsuspected dangers of recurrent decay and loss of the tooth.

As the gold for the crown costs \$1, he can devote only 55 minutes to preparing the root and making and setting the crown, or about one-half of his average time for good work. The work will be only one-half of standard quality and the tooth may be lost years before it should. These figures make no allowance for the making of a crown by a laboratory.

Thus competition-determined fees save the patient the difference in expenditure between 75 cents and \$1.40, or 65 cents on the filling; and the difference between \$5 and \$7.20, or \$2.20 on the crown. In return for this small saving of \$2.85 he has received inferior service, of which he is unaware, and will need to have

the work done over sooner than should be, or may lose the teeth.

It is an open question whether such service by dentists to patients is not a betrayal of every trust which the patient places in the dentist.

Dr. Van Woert's famous phrase, "The dentist cannot do justice to his patient unless he also does justice to himself," should hang in every operating room.

THE IDEAL METHOD OF COMPUTING FEES

would be to determine in advance a reasonable annual salary to be paid by the practice to the dentist, and add this remuneration to the overhead expense and supply bills, to learn how much the annual gross receipts must be, exclusive of precious metals costs, to afford that remuneration. The sum arrived at in this manner should be divided by 1,000 to obtain the minimum hour fee, exclusive of the cost of teeth and precious metals.

Suppose a dentist should say to himself, "My practice now takes in \$2,000 annually, but this affords me only \$950 annually as salary, which is not enough to support my family decently. I must have \$1,500 per year." He would add his office expense of \$848 to the proposed salary of \$1,500, making a total of \$2,348 per year, or to make it round numbers and easy figuring, \$2,400. This is equivalent to \$2.40 for each of 1,000 income hours, or 4 cents per income minute. The business management of the office would then be directed to per-

suading the community that dental service, as he renders it, is worth \$2.40 per hour, instead of \$1.80.*

With the spread of business knowledge, this method of determining fees will doubtless obtain in many offices where it is not now followed. But at the time of this writing, such methods of computation are not general, and it has been necessary to accept the figures from practices as now conducted and estimate the remuneration as the sum remaining after the expenses are paid.

THE METHOD OF COMPUTING OPERATION COSTS

here employed, has been to determine the minimum income hour and minute fees in practices of different classes, as shown in Chapters Nine to Fourteen inclusive, to obtain as many reports as possible upon the time required to perform different operations, to average the time required for each form of operation and multiply the average time by the minimum fee for each class of practice. The results are the best averages of costs at present obtainable.

COMPLETE AND INCOMPLETE FEES

Some who have helped in compiling this data have felt that operations should not be subdivided, as here, but that only the average cost of each completed operation should be given, as the cost of treating a molar root and filling the crown with amalgam. The costs of some

* The subject of the dentist's salary, and the danger of an exaggerated idea of his worth, is discussed in Chapter Seven.

completed operations are given, but the costs of each division of the operation are also given separately, as the cost of treatment and the cost of the filling.

It is believed that it will be easier for dentists who are beginning computation of fees if they are given the costs of the divisions of each operation, so that they may combine them in the different ways necessary to quote intelligent advance fees on different operations in a tooth. Thus a chronically abscessed molar is to be treated and the crown restored. It will require, on the average, 105 minutes to treat the tooth and fill the roots, and will cost the dentist a certain sum. To this may be added the time required for an amalgam filling, 45 minutes; or for a gold crown, 85 minutes; or an average quality inlay, 115 minutes; or a finely made inlay, 165 minutes. The total time is quickly learned and is multiplied by the minimum fee rate and the value of the gold added. The sum is the minimum fee for each form of operation.

It may be found helpful to note on the fly-leaf of the appointment book a summary of the costs of operations, from the table in Chapter Eighteen, computed at the rate nearest the annual gross receipts of the practice. This can be referred to in quoting advance fees.

THE TIME RECORDS

have been obtained through the assistance of many dentists, some of whose names are unknown.

It is to be regretted that the number of operations reported upon is not greater: Exclusive of bridgework, 3,578 operations are reported, but this is insufficient to permit drawing conclusions in so important a matter. There should be a record of at least 1,000 of each kind of operations and they should be in detail as to quality of service.

THE DENTIST'S OWN RECORDS

It cannot be too emphatically stated that no dentist should be satisfied with the business conduct of his practice until he has careful time records of at least 100 operations of each sort common to his practice, such as 100 treatments of acute abscesses in anteriors, 100 in posteriors, 100 chronic abscesses, 100 of each form of inlays, etc. Each dentist needs to know how long it takes **him** to accomplish each operation well, in order that he may have a basis for quoting advance fees that are fair to his patients and to himself. He can learn this only from his own records. Dentists who hesitate to make such records because of the very considerable amount of trouble involved, may rest assured that no other similar amount of trouble in their entire business lives will prove more profitable financially.

THE QUALITY OF SERVICE

A most important item in considering reports upon operations is the manner in which each operation is

completed. If one dentist works at moderate speed but with great skill, and another works with little skill but at great speed, an average of their reports will not establish an average time for rendering that service well at the hands of different men, but only a compromise between how long it takes to do it well and how quickly it can be done. Many dentists who are now opposed to the consideration of the business side of practice may look upon it more favorably when it is seen that the intelligent determination of fees demands the establishment of standards of excellence in each operation, for the moment a standard quality of service is departed from, all discussion of costs and fees becomes uncertain and impracticable.

AVERAGE QUALITY INLAYS

The importance of standard quality in service can be well illustrated by citing the reported time on inlays. Ninety-five compound gold inlays, from about 50 different operators, are reported as requiring, on the average, 1 hour 55 minutes each, not including treatment. The quality of service in these inlays is unknown. They may or may not have been contoured; the occlusal surfaces may or may not have been carved to hold the opposing teeth in place, to articulate and to perform the functions of mastication. They may preserve the interdental papillae, or may facilitate the destruction of the papillae and the formation of pockets.

STANDARD QUALITY INLAYS

In contrast with the average quality inlays, stands out the report on 52 compound gold inlays in bicuspid and molars which required an average of 2 hours 45 minutes each, from the beginning of the cavity preparation to the completion of setting the inlay, not including treatment. Each of these inlays was carved to restore the lost tooth area, to protect the interdental papilla, to divert food away from the contact points into the embrasures, to hold opposing teeth in place, and to discharge the functions of mastication.

Each of these 52 inlays required 50 minutes more than the average time reported for the 95 in which the quality of service is unknown. This difference in time, and the difference in fee it entails is very important to every dentist. It makes a difference in cost of \$1.30 to the Class I dentist, whose earnings are too small to permit such a loss, and of \$8.10 to the \$10,000 dentist.

STANDARD SERVICE AND THE PATIENT

It makes a greater difference to the patient than to either of these dentists. An inlay which is poorly adapted or formed because not enough time was given to it may cause the early loss of the tooth or the derangement of the tooth row by forcing opposing teeth out of position, or may cause discomfort in mastication and the formation of pockets between the teeth. On the other hand, inlays like the 52 described above, retain

the teeth in position, protect the gums, masticate efficiently and afford patients the maximum of comfort and health.

THE COST OF LABOR BY ASSISTANTS

It is now common practice to employ one or more assistants in a dental office. The labors of these assistants vary with the conditions, but in well managed offices they perform all duties in which the dentist's professional skill is not required. Such service may include all of making an inlay except forming the wax pattern; all of making a denture except the impressions and bites, part of the work of putting in amalgam and cement fillings, etc.

Very little data is at hand to show what it costs to employ an assistant, and no data at all to show in dollars and cents the economies effected by such assistants. It is evident, however, that the more such helpers accomplish, the more they reduce the cost of any given operation. Thus, if it would require 8 hours for a dentist to make a full upper denture, from commencing the impression to fitting the finished denture in the mouth, and 6 hours of this work can be performed by assistants whose time is less valuable, the cost of the work will be materially reduced.

It will be advisable for dentists who employ laboratory assistants to open an account with their own laboratory and to charge to it depreciation, refunding, rent,

light, heat and supplies, salaries, etc., and credit it with work performed. Such information will be valuable to the individual dentist in correcting his estimates of costs, and generally valuable to the entire profession.

EMPLOYING COMMERCIAL LABORATORIES

There can be no doubt that well organized dental laboratories can effect economies for dentists if the conditions governing true economy are understood and observed by both parties. But laboratories can effect only apparent economies for dentists under the conditions which many dentists now impose.

The commercial laboratories can effect true economies only by doing for dentists a satisfactory quality of work at less than the expense at which the dentist himself can do the same work; and by freeing his time for other work. Thus, if it requires 8 hours for a dentist to make a full upper denture, the cost of that plate to a dentist with a \$2,000 gross practice must be \$14.40 plus \$2 for the teeth. But if the dentist can take the impressions and bites well in 2 hours and the laboratory can do the rest, the costs may be as follows: Two hours' time at \$1.80; laboratory bill, \$3.00; teeth, \$2.00; total \$8.60. If the 6 hours thus freed by the laboratory can be made into income hours, the practice may earn \$10.80 gross.

Similarly, it takes this dentist 1 hour to make a bicuspid crown, the cost to him being as follows: One

hour's time, \$1.80; gold, \$2.00; total, \$3.80. The laboratory specialist will make the ordinary gold crown in much less time than the dentist, and his bill for the same crown may be from \$1.50 to \$3.00. During the hour set free by the laboratory service, the practice may earn \$1.80 gross.

Dr. Holroyd calls attention to the fact that in law offices, engineers' offices, etc., the head of the office charges for his assistant's time at the same rate as his own, because he must assume the responsibility and any loss arising through faulty work. In like manner, the dentist must assume responsibility for the work of his assistants, whether in his office or outside, and bear any losses arising through faulty service. He should then estimate laboratory costs at the value of his own time.

STANDARDS OF LABORATORY SERVICE

The dentist who knows how the service he desires should be performed, who will furnish correct models, bites and full instructions and will pay reasonable prices for good service, may effect economies by employing the service of good commercial laboratories. But such ideal relations between dentist and laboratory rarely exist.

The habitual procedure of many dentists who send work to laboratories indicates that to their mind the employment of the laboratory is an excuse for omitting the acquirement and exercise of knowledge, skill and care on their part.

No one interested in the economic conditions of practice can fail to notice the increasingly important position of the commercial dental laboratories in the scheme of dental service. Laboratories are increasing in numbers, in size, in skill, and in the kinds of service they render to dentists. Evidently the number of dentists they serve is increasing also.

One cannot visit any number of laboratories without being convinced that the position and function of the laboratories is generally misunderstood by dentists, and that most dentists fail to avail themselves of opportunities to effect possible and desirable economies.

In the field of plate work, concerning which the writer can speak with authority, the course followed by the dentists is often such as should utterly discredit him. Impressions taken in untrimmed or poorly fitted trays, with such an excess of material as wholly precludes a proper impression, without marks to limit the area of the plate, without marks for hard or soft tissues, showing to the trained eye displaced tissues that promise trouble, are the rule rather than the exception.

If a bite is sent, it may consist of a roll of wax into which the patient has bitten. There are rarely any marks to show the size of the orifice or the positions of the lips in smiling. Sometimes the models are sent mounted on articulators which are incapable of correct opening and closing movements, to say nothing of lateral movements. In such cases, there is often an entire

absence of anything to show the desired amount of separation between the models. Only rarely are there any directions as to the form of the patient's face, and frequently there is no shade number.

The dentist who sends models or orders to a laboratory should remember that he is serving himself and that such service by himself to himself is not an economy, and does not enable the laboratory to render him economical service. It results in a decidedly inferior product, with numerous try-ins, with frequent "re-makes," with hours of fitting and trimming and explanation by the dentist to the patient, and often with permanent dissatisfaction on the part of the patient. Thus, no one is benefited.

The dentist should recognize that the laboratory is simply a group of skilled mechanics ready to begin where his work leaves off and to do his bidding.

He should remember that the laboratory man does not see the patient and cannot obtain his own data, but is dependent upon the data furnished by the dentist. Models for all of both jaws should be sent even when only a short bridge is wanted, so that the laboratory man can determine the depth of overbite, the inclination of the teeth, and the proper fullness. Models should not be mounted on articulators which do not admit of lateral movements, since such articulators do not permit arranging the teeth "to clear" in lateral movements of the jaw. If the dentist will furnish correct im-

pressions or models, bites and a description of conditions in the mouth he will receive good work at less cost than he can do it himself. It will require few retrials or "remakes" and fewer fittings, trimmings and explanations.

The employment of the services of a laboratory cannot be held to excuse a dentist from knowing how to take correct impressions and bites, pour models, select tooth forms and shades and at least the essentials of articulation in dentures, bridges and crowns. Unless he knows these things, he can neither do his part properly, nor tell when he is well served.

DIRECTIONS TO LABORATORIES

It is within the bounds of the title of this book to say that the establishment of the greatest economies in employing the services of laboratories requires the dentist to so develop himself that he knows what materials he wants used and how they should be used, and that he should order the employment of the desired materials and see that they are used.

Some laboratories have made such low prices on crown and bridgework that they have resorted to the use of inferior golds to secure a profit. No reduction in the price of a crown which is effected at a sacrifice in quality of gold plate or solder is likely to be an economy to the dentist who must "make good" if the work fails.

Some laboratories have made a considerable profit by

substituting inferior teeth for the kind specified by the dentists, or when the dentists did not specify any particular kind. The substitution was successful because the dentists did not know the teeth they desired well enough to detect it.

Of course reputable laboratories frown on such practices as injurious to all concerned. They welcome extensive and accurate knowledge by dentists and intelligent direction.

But whether the laboratory welcomes it or not the dentist, as the professionally trained man, should know what he wants done, how it should be done, and what materials should be employed.

FEEES FOR LABORATORY SERVICE

The dentist should recognize that the financial economies resulting from the employment of laboratory service are of two kinds. The laboratory can do certain parts of his work for less money than the dentist could; and it leaves him free, perhaps as income hours, the time he would spend on the work.

But while the laboratory can do the work for less than the dentist could, the dentist must recognize that there is a level of price below which the laboratory cannot go without sacrificing quality of work.

Because dentists do not usually know what it costs them to do any given form and quantity of work, they do not know what the laboratory should charge for

good service, or where economy stops and loss begins. This lack of knowledge on the part of the dentists, and sometimes a similar lack of knowledge on the part of laboratory men, has led to unwise and unprofitable price competition among laboratories. And dentists have often been misled into patronizing a laboratory because its fees are lower than the fees of a competing laboratory. Yet fees that are too low mean final loss for all concerned, laboratory, dentist and patient.

Many of the commercial laboratories are conducted by wideawake business men. Their knowledge of laboratory work and laboratory business is in advance of the professional knowledge possessed by many of the dentists they serve. They are glad to render the highest form of mechanical service to dentists who will permit it and will coöperate in it. And they can do their part of the work at less expense than the dentist can, and may often leave him valuable time free.

A better understanding of the business elements in dental practice will result in more satisfactory relations between dentists and laboratories and in effecting greater economies for both.

NUMBERS FOR REFERENCE

For convenience in identification and reference, each form of operation has been assigned a number. The average costs, including remuneration, are given, by these numbers, in the table in Chapter Seventeen.

CHAPTER SIXTEEN

DESCRIPTIONS OF 3,578 OPERATIONS AND THE REQUIRED TIMES

AVERAGE TIMES IN PROPHYLAXIS

OPERATIONS NOS. 1, 2, 3, 4, 5, 6

No. 1. Scaling and Cleaning. Twenty-one operations, from ten dentists; average time, 30 minutes. This is believed to be the form of "cleaning" common before prophylaxis had been developed into a science. It consists in removing easily accessible deposits, and running a brush or rubber cup over the teeth. Costs as per table following.

No. 2. Simple Prophylaxis given in a careful and scientific manner. Thirty-one operations from three dentists; average time, 4 hours. Costs as per table following.

In these cases there were deposits and slight irritation of the gingival tissues, but no pockets or pus formation. The treatment consisted in the removal of all deposits, the polishing of all surfaces of all teeth, and medicinal applications to the soft tissues. Several appointments were necessary in each case.

No. 3. Prophylactic treatments. Extent of deposits

and conditions of gums not stated. Deposits removed with instruments, stains removed from plane surfaces with brush wheel, approximal surfaces polished with floss, mouth sprayed and paste-polisher used, 121 cases from one dentist. Total time, 129 hours 45 minutes; average time, 1 hour 5 minutes. Costs as per table following.

No. 4. Intermediate prophylaxis. Seventy-nine cases from four dentists; average time, 9 hours 24 minutes. Costs as per table following.

In these cases there were extensive subgingival deposits and inflammation of the soft tissues, with many pockets and with pus formation but the teeth were not loose. The treatment consisted in the removal of all deposits, the polishing of all surfaces of roots and crowns, and the medicinal treatment of the soft tissues until they returned to a state of health.

No. 5. Advanced Prophylaxis, not requiring splints. Nine cases from three dentists; average time, 21 hours. Costs as per table following.

These cases presented extensive deposits on the roots, numerous and deep pockets, copious pus flow, and loosening of the teeth but not to an extent where they could not be made serviceable without splints.

The treatment consisted of removal of all deposits, the polishing of all surfaces of roots and crowns, and medicinal treatment of soft tissues.

No. 6. Advanced Prophylaxis, requiring splints.

Twenty cases from three dentists. Average chair time, 20 hours. Average laboratory time, 4 hours 45 minutes. Average cost of gold in splints, \$18.45. For want of definite information as to costs of conducting individual laboratories, the chair and laboratory time is here estimated at the same price per hour. For the construction of splints, this is probably accurate, as their construction is likely to require the dentist's constant personal attention. Costs as per table following.

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AVERAGE TIMES IN DEVITALIZING AND TREATING
OPERATIONS NOS. 7 TO 16 INCLUSIVE

It might be thought that it should be unnecessary to subdivide this subject, since devitalizing might be much alike under all conditions. This is one of the business errors into which we have fallen, and which has often rendered operations unprofitable. It will be shown that the cost of devitalizing pulps varies greatly with different methods and in different teeth. This difference is even more noticeable in the treatment of putrescent teeth.

No. 7. Devitalizing healthy anterior teeth and filling roots, no exposure, pressure anesthesia. Sixty cases from fifty dentists. Average time, 30 minutes. Costs as per table following. The records do not show whether or not there were cavities in the teeth, and to this extent are indefinite.

No. 8. Devitalizing healthy anterior teeth for abutments and filling roots, no cavities. Forty-eight cases from three dentists. Average time, 52 minutes. Costs as per table following.

In each of these cases a cavity was drilled into the sound tooth structure and Arsenious acid sealed in from 24 to 48 hours. An exposure of the pulp was then made, pressure anesthesia applied, the pulp removed, the hemorrhage arrested as well as possible and the apical third of the root sealed.

No. 9. Removal of exposed anterior pulps, not inflamed, pressure anesthesia, filling canals. Fifty-nine cases from fifty dentists. Average time, 25 minutes. Costs as per table following.

No. 10. Soothing pulpitis, removing anterior pulps, filling canals. Forty-one cases from thirty dentists. Average time, 45 minutes. Costs as per table following.

No. 11. Treating putrescent anterior canals and filling roots. Fifty-three cases from forty-six dentists. Average time 1 hour 15 minutes. Costs as per table.

The records do not show how many of these were chronic, but it is apparent that there will usually be a difference in cost between treating a canal in which the pulp has just died and may not yet have wholly disintegrated, and one in which a chronic abscess exists. Until a large number of very exact records is kept, it will be safe to estimate the treatment of each canal as requiring at least 75 minutes.

No. 12. Removing healthy bicuspid and molar pulps. Two hundred and eighteen cases from sixty dentists. Average time, 65 minutes. Costs as per table following.

The difference between similar operations in different teeth here becomes apparent. In 108 cases of removal of healthy anterior pulps, the average time is 40 minutes. In removing healthy pulps from bicuspids and molars that time is increased to 65 minutes. This difference of 25 minutes makes a difference, in cost, of 75 cents to the \$2,000 dentist, and of \$4.05 to the \$10,000 dentist.

No. 13. Treating putrescent molars and filling roots. Ninety-two cases from forty dentists. Average time, 1 hour 45 minutes. Costs as per table following.

The records do not show the methods of treatment or the care with which treatment was carried out. Nor do they show the care exercised in filling the roots.

The importance of extensive individual time records to each dentist who must quote advance fees, is well illustrated by the experience of a dentist whose costs total \$6 per hour. He was required to quote advance fees upon two cases, each of which involved treatment of a putrescent molar. In one case the molar yielded readily to treatment, and the expense was not excessive. The other molar proved very stubborn, and required more than four hours of work before the roots were satisfactorily filled. Only by knowing that the average time required to treat such teeth was approximately

two hours, and estimating accordingly, was he able to protect himself from loss.

No. 14. Treating 10 putrescent teeth (7 molars, 1 bicuspid, 2 anteriors) presenting 25 canals. Some old root fillings removed. Very careful treatment. Average time, 1:25 to each canal, making 4:15 for each molar, 2:50 for each bicuspid and 1:25 for each anterior.

Costs per canal as per table following.

No. 15. Treating putrescent molars, filling roots, filling crowns with amalgam. Forty-nine cases from forty dentists. Average time, 2 hours 10 minutes. Costs as per table following.

The records do not show the amount of care used in the treatment, in filling the roots, in cavity preparations, or in forming the amalgam fillings.

No. 16. Treating putrescent teeth, kind of teeth and care in treatment not specified. Ninety-three cases from twenty dentists. Average time, 1 hour 25 minutes. Costs as per table following.

AVERAGE TIMES IN EXTRACTIONS

OPERATIONS NOS. 17 TO 24 INCLUSIVE

The cost of extractions differs in proportion to the number of teeth extracted, and the character of anesthetic used. Single extractions cost very much more in proportion to the fee usually charged than do ordinary extractions involving a number of teeth.

The cost of the extraction differs greatly with the kind of anesthetic employed. With local anesthetics, the records seem to show that the time required for even extensive extractions is short. With nitrous oxide and oxygen, more time appears to be required, while with ether the required time is greatly increased.

No. 17. Extractions of one or two teeth or roots, local anesthetic. Thirty-nine cases from ten dentists. Average time, 15 minutes. Costs as per table following.

No. 18. Single extractions. Novocain-Suprarenin tablets, mouth properly cared for before and after extraction. One hundred and seventeen cases from an extracting specialist. Average time 30 minutes. Costs as per table following.

No. 19. Extractions of from 3 to 10 roots and teeth in one mouth, local anesthetic. Two cases from one dentist. Average time 20 minutes. Costs as per table.

No. 20. Extractions under somnoform. Three hundred and eighty-seven patients for whom 1 tube, 5 c. c. sufficed. Average time of anesthetic, 5 minutes. Average time required for receiving patient, operating and dismissing patient, about 15 minutes. Costs as per table following.

No. 21. Thirty-three patients requiring 2 tubes of somnoform, twelve requiring 3 tubes; one requiring 4 tubes and one requiring 7 tubes, total 47 patients. Average time required for anesthetic, 20 minutes. Costs as per table following.

No. 22. Twenty-seven patients for nitrous oxide. Average time required, 10 minutes. Costs as per table following.

No. 23. Extraction of 18 roots and teeth, one mouth, nitrous oxide and oxygen, nasal inhaler. One case; required time, 1 hour 20 minutes. Costs as per table following.

It is probable that the actual extraction did not occupy any considerable portion of this period, but the preparation for the operation itself, and that portion of the care of the patient which required the dentist's attention, consumed this much time. In other words, the facilities of the office for the care of patients were interrupted for this period, and this should form the basis for the charge.

No. 24. Extensive extractions under ether. Two cases, average time 2 hours 45 minutes. Costs as per table following.

It is apparent that extractions under ether are much more expensive to the dentist than extractions under nitrous oxide and oxygen or somnoform, and this increased cost should form the basis for the minimum fee. Unless the dentist can receive for such operations a fee varying from \$5.00 in the case of a \$2,000 dentist to \$18.00 in the case of a \$5,000 dentist, it will be found more economical to refer such cases to the extracting specialist or to the hospital.

AVERAGE TIMES IN FILLINGS
OPERATIONS NOS. 25 TO 36 INCLUSIVE

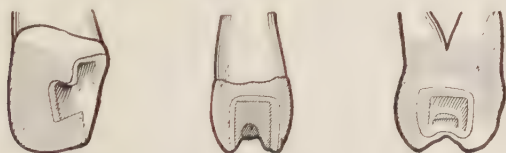
The costs in different fillings differ greatly with the extent and location of the cavity, and with the skill exercised in the formation of the cavity and filling. For instance, a number of dentists have reported upon several hundred simple amalgam fillings, with an average required time of 30 minutes. But one dentist has contributed a report on 87 amalgam fillings, including simple and compound fillings, and some "amalgam caps" which include the entire occlusal surface of a tooth. His reported time averages 10 minutes for simple and compound fillings, and about 15 minutes for "caps," including the time for preparing the cavities and polishing the fillings. Such variations in records emphasizes the fact that each dentist should compile his own time records as the basis for his own minimum fees.



Simple Cavities, classification of Dr. Thos. E. Weeks in American Text-book of Operative Dentistry

No. 25. Simple amalgam or cement fillings. Four hundred and seventy-three cases from about 65 dentists. Average time, 25 minutes. Costs as per table following.

The term "simple" is here employed to describe a filling involving only one surface of a tooth. No records of the care exercised in any of the steps are available. Three hundred and nineteen of these fillings were reported as averaging 30 minutes, but 87 were reported by one dentist as requiring only 10 minutes each, which reduced the general average.



Compound Cavities, classification of Dr. Thos. E. Weeks.

No. 26. Compound amalgam or cement fillings. One hundred and sixty-one cases from sixty dentists. Average time, 45 minutes. Costs as per table following.

The term "compound" is here employed to indicate a filling restoring two or more surfaces of a tooth. No details as to quality of the service are obtainable.

No. 27. Carefully made amalgam restorations, (Dr. Crandall's method). Fifty-seven cases from one dentist. Average times, 48 minutes. Estimated in table following at 50 minutes.

No. 28. Synthetic fillings. Eighty-one cases from twenty dentists. Average time, 40 minutes. Costs as per table following.

The term "Synthetic" is a trade name for a kind of

cement. The reports of these operations merely said "Synthetic fillings," and gave no details as to location or extent.

No. 29. Ascher's Artificial Enamel fillings. Twenty-nine cases from one dentist. Average time, 40 minutes. Costs as per table following.

No. 30. Simple gold foil fillings. Forty-two cases from fifteen dentists. Average time, 30 minutes. Costs, exclusive of gold, as per table following.

No. 31. Gold fillings, location and extent not specified. Nineteen cases from five dentists. Average time, 1 hour 40 minutes. Costs, exclusive of gold, as per table following.

No. 32. Simple gold inlays. Seventy-two cases from forty dentists. Average time, 1 hour 20 minutes. Costs, exclusive of gold, as per table following.

The term "Simple" here indicates that the inlay restored only 1 surface of a tooth. No data as to whether the direct or indirect method was followed is available. Cavity preparation is included in the time, but not treatment.

No. 33. Compound gold inlays. Ninety-five cases from ten dentists. Average time, 1 hour 55 minutes. Costs, exclusive of gold, as per table following.

No. 34. Extensive gold inlays, character not otherwise specified, 16 cases, average time, 3 hours 20 minutes. Costs, exclusive of gold, as per table following.

No. 35. Finely carved and contoured gold inlays in

bicuspid and molars. Fifty-two cases from one dentist. Average time, 2 hours 45 minutes. Costs, exclusive of gold, as per table following. The gold cost, on the average, \$1.20 per inlay.

No. 36. Average of 235 inlays listed above, 2 hours. Costs, exclusive of gold, as per table following.

AVERAGE TIMES IN CONSULTATION

No. 37. Thirty-eight cases from one dentist. Average time, 25 minutes. Costs as per table following.

Nearly every contract which the dentist undertakes is preceded by a consultation with the patient. And dentists permit hundreds of consultations for which they make no charge, the feeling being that they will wager the value of their time on the chance of securing the patronage.

This practice is not common in other professions. Physicians and the specialists in medicine charge for each consultation. So do lawyers, architects, engineers and a host of other workers.

A consultation with the dentist usually involves an examination of the mouth and advice as to what should be done. It occupies, on the average, 25 minutes of the dentist's time, and he gives the very best of his professional knowledge. Surely a charge for so valuable a form of service is justifiable. The cost of consultations to different dentists is shown in the table following.

The absence of any fee for consultations is one of the

fruits of price competition among dentists. It costs the Class I dentist 65 cents for the average consultation and the Class X dentist \$4.05. There is no reason why the dentist should wager this much on the chance of securing the patronage, unless he is to add about twice that sum to the cases he does get, to make up for the cases he does not get. This would be distinctly unfair to patients.

Clinical evidence seems to show that patients suffer more from free consultations than do the dentists. Free examinations, like other free services, are not usually carefully performed and patients are often carelessly or inaccurately informed concerning their needs and the possibilities of service. They are often misled into accepting inferior service.

It appears to be the case that when dentists charge for their time in consultations as in other service, and examine and advise with the same care that they render operative service, patients receive much better treatment and the expense of the examination to the patient is often a very real economy, in both teeth and money.

AVERAGE TIME IN MAKING CROWNS

OPERATIONS NOS. 38 TO 49 INCLUSIVE

No. 38. Shaping anterior roots for porcelain crowns. Fifty-eight cases from twenty-five dentists. Average time, 30 minutes. Costs as per table following.

These roots were not decayed and did not need build-

ing up. They were shaped for Twentieth Century and Dentsply Crowns. No treatment.

No. 39. Fitting porcelain crowns to roots like above. Fifty-eight cases from twenty-five dentists. Average time, 45 minutes. Costs as per table following.

No. 40. Average time shaping root and setting porcelain crown, as above, 1 hour 15 minutes. Costs, exclusive of crown, as per following table.

No. 41. Banded and half-banded porcelain crowns, complete. Twenty-nine cases from one dentist. Average time, 4 hours 10 minutes. Costs, except precious metals and crown, as per table following.

Banded porcelain crowns are those where a band, or a half band with a cap, is made for the root and the crown is set on it. Sometimes the band extends up about the crown to form a basket in which the crown sits. It will be noticed that these crowns require more than three times as much time as similar crowns not banded.

No. 42. Porcelain crown with cast base. Four cases from one dentist. Average time, 3 hours. Costs, exclusive of precious metals and crown, as per table following.

No. 43. Richmond crowns, complete, no treatment. Twenty-two cases. Average time, 3 hours 40 minutes. Costs, exclusive of precious metals and teeth, as per table following.

No. 44. Fitting and setting bicuspid porcelain crowns. Number of cases not reported. Average time,

1 hour 10 minutes. Costs, exclusive of crown, as per table following.

No. 45. Cuspid gold crown, complete, number of cases not reported. Average time, 50 minutes. Costs, exclusive of gold, as per table following.

No. 46. Making a bicuspid or molar gold crown, no work on tooth. Sixty-three cases from fifty dentists. Average time, 1 hour. Costs, exclusive of gold, as per table following.

No. 47. Making and setting a bicuspid or molar gold crown, no treatment. One hundred and forty-one cases from sixty dentists. Average time, 1 hour 25 minutes. Costs, exclusive of gold, as per table following.

No. 48. Treating putrescent molar and making and setting gold crown. Forty cases from thirty dentists. Average time, 3 hours 10 minutes. Costs, exclusive of gold, as per table following.

No. 49. Treating and crowning 6 putrescent molars, one dentist. Teeth very carefully treated and roots filled. Average time treating and filling roots, 75 minutes; preparation of root, impression and bite, average time, 65 minutes; heavy bands of Ney's 22K plate and very heavy carved and cast coin gold tops, requiring an average of 80 minutes of the dentist's time in laboratory work; setting crowns, average time 30 minutes; average time, 4 hours 10 minutes. Costs, exclusive of gold, as per table following. Average cost of gold in these crowns, \$2.75.

GOLD IN CROWNS

The average cost of gold in 1,000 swaged crowns, either soldered or seamless, was \$1.00.

The average cost of gold in 1,000 bicuspid and molar crowns with cast tops, was \$2.25.

AVERAGE TIME IN BRIDGE WORK

OPERATIONS NOS. 50 TO 57 INCLUSIVE

No. 50. Removing bridges. Five cases. Average time, 25 minutes. Costs as per table following.

No. 51. 1 x 1 bridge, all gold, that is a bridge with one crown and one dummy, no treatment. Nine cases. Average chair and laboratory time, 6 hours. Costs, exclusive of gold and tooth, as per table following.

No. 52. 1 x 1 bridge, one gold crown, one porcelain facing, complete, no treatment. Five cases. Average chair and laboratory time, 6 hours. Costs, exclusive of gold and tooth, as per table following.

No. 53. 2 x 1 all gold bridge, 2 crowns, 1 dummy, no treatment. Four cases. Average chair and laboratory time, 5:20. Costs, exclusive of gold, as per table following.

No. 54. 2 x 1 all gold bridge, 2 crowns, 1 dummy, 2 teeth treated. One case. Chair and laboratory time, 6:15. Costs, exclusive of gold, as per table following.

No. 55. 2 x 1 bridge, 2 gold crowns, 1 porcelain faced dummy, 1 tooth treated. One case. Chair and labora-

tory time, 7:05. Costs, exclusive of gold and teeth, as per table following.

No. 56. 2 x 2 all gold bridge, 2 crowns, 2 dummies, no treatment. Ten cases. Average chair and laboratory time, 6:15. Costs, exclusive of gold, as per table following.

No. 57. 2 x 2 bridge, 2 crowns, 2 porcelain faced dummies, no treatment. Two cases. Average chair and laboratory time, 6:40. Costs, exclusive of gold and teeth, as per table following.

AVERAGE TIMES IN PLATE WORK

OPERATIONS NOS. 58 TO 72 INCLUSIVE

No other form of dental service comprises more numerous activities than the making of a partial or full denture to articulate with opposing natural teeth, or two full dentures to articulate with each other. No other form of service offers greater opportunity for the dentist to slight attention to principles or details, to deputize work to others, to rob the patient of natural appearance and the power of mastication and to either cajole the patient into acceptance of an inferior product in the thought that it is the best that can be done, or to wear out the sufferer's patience in refitting and remaking. On the other hand, no other department in dentistry now offers opportunities for the finer application of science and art; no other form of constructive service affords greater benefits to those in need, or offers more

opportunity for winning the enthusiastic praise of those to whom natural appearance and the powers of proper speech and mastication have been restored.

MORE PLATES TO BE MADE

In view of the recently acquired knowledge of the impossibility of filling many root canals, and of the serious systemic consequences possible from imperfectly filled root canals acting as foci of infection, it is probable that many more teeth will be extracted in years to come than have been extracted in the years immediately past; that fewer crowns and bridges will be made and that more partial and full dentures will be worn. Under these conditions, the making of dentures will assume new importance, and it is desirable to understand the economics of their production on a basis fair to the patients and to the dentists. An explanation of some of the factors involved is therefore advisable. It is here made in reference to full dentures, and may easily be applied to the construction of partial dentures.

NO GENERALLY ACCEPTED QUALITY OF SERVICE

There appears to be, at the present time, no generally accepted standard of quality in denture service. Methods which have been accepted for years in every step of the work, from the diagnosis of the condition of the mouth before taking the impression to the grinding-in of the finished denture, are giving way, among the

younger men at least, before the scientific methods championed by Williams, Gysi, Supplee, and others. These methods supplant the rule of thumb with science. They demand much more time in the earlier stages of the work, than the former methods, but if the figures quoted hereafter may be depended upon (and they are the best obtainable) at least enough time is saved in the later stages so that the dentist can produce the more perfect dentures in which the application of the new methods result, at a cost no higher than the cost of the dentures by the former methods, if the number of fittings and trimmings and the proportion of make-overs required in the inferior dentures is considered.

HOW THE COSTS ARE ESTIMATED

In this chapter and that following, it is assumed that all the work is done by the dentist or his assistant, except the investing, vulcanizing and finishing. This is not always the case, but it is necessary for the dentist to take the impressions and bites, to select the form and shade of the teeth, and for the dentist or his assistant to mount the models on the articulator if he wishes them to be in right relations to the condyles. The arrangement and waxing of the teeth may be done by the laboratory but the try-in and the corrections should be by the dentist. The investing, vulcanizing and finishing may be done by some one else.

In the table of costs in Chapter Seventeen the value

of the assistant's time is figured at the same rate as the dentist's time. It is true that it does not cost as much for the assistant to perform any task which is successful, but it often costs more to have the assistant perform any task which is unskillfully done than it would have cost the dentist to do it himself. As this is being written, an assistant has just spoiled, through unskilled care in drying out, a model carrying ten posts and bands for porcelain crowns to be carefully articulated to upper teeth. The making of this model had required two hours of the dentist's time at \$6 per hour, and the cost of this carelessness was much greater than it would have been had the dentist watched the drying. The dentist was, of course, compelled to assume the responsibility and the loss. In this way, the dentist suffers the loss whenever the service rendered by any of his deputies is unsuccessful in any form.

Even if the dentist should not charge for his assistant's time at the same rate as for his own, the comparative costs of different qualities of service, as here given, is not greatly affected, because the dentist and his assistant have been made to do, as nearly as possible, the same things in both classes of cases, that is in making unscientific and scientific dentures.

AVERAGE TIMES IN UNSCIENTIFIC DENTURES

Operation No. 58. Chair time required for making a single, full vulcanite denture. Average of reports col-

lected by Dr. W. J. Holroyd from 150 dentists. Examination and consultation, 30 minutes; taking impression, 15 minutes; taking bite, 20 minutes; trial plate fitted, 30 minutes; fitting denture in mouth, 15 minutes; an average of 4 visits by the patient for greater or smaller adjustments, requiring in all 80 minutes. Total time, 3:10. Costs as per table following.

No data is available as to the quality of service comprised in these reports, but it is probable that most of these impressions were finished with the mouth open and that the bite was made over the model and finished in the mouth. Of course, among so many operators, it is quite likely that many impressions and bites were very well done and many were poorly done, in which case the average of the times is of less value than it would be if all had followed any one method.

Operation No. 59. Average laboratory time required in making the single full vulcanite denture, for which the chair time was given in Operation No. 58. Taken from the same 150 reports.

Painting impression and pouring model, 12 minutes; separating and making baseplate, 20 minutes; mounting on articulator, 10 minutes; selecting teeth, 15 minutes; articulating teeth, 46 minutes; final waxing, 25 minutes; investing, 20 minutes; packing, putting in vulcanizer, and taking out, not including time in vulcanizing, 90 minutes; scraping and polishing, 60 minutes; percentage of make-overs, 25 per cent.; total time, 4:58.

Costs, exclusive of cost of teeth, estimating all time at value of dentist's time, as explained above, as per table following.

Scientific data is not at hand to permit an exact analysis of the cost of such laboratory work by an assistant, but if the assistant received \$12 per week, and was productively busy 1,000 hours per year, the cost of his labor for this laboratory work would be \$3.10. To this should be added the laboratory's proportion of the overhead expense and supply bills.

It will be noticed that these actual records from 150 practices show that 25 per cent. of the plates have to be remade, that is, one in four. It may be safely assumed that none of these plates is remade until the dentist has spent more than the 80 minutes referred to in No. 58 in trying to correct the plate or persuade the patient to accept it. These must be the hopeless, undisguisable failures. The 2 hours here allowed for this insurance item is 40 per cent. of the entire laboratory time, the laboratory time on the successful dentures being only 2:58.

It is at this point that scientifically made dentures score a great economy in time, through the fact that refittings are usually few or short and that make-overs are much more rare than is the case with unscientific dentures. Through the courtesy of Dr. Ruyl it is possible to report the number of make-overs in 324 scientific dentures, as follows:

100 full upper and lower, 6 made over, one of them to humor the patient and one because of porosity.

100 full uppers, 4 make-overs.

50 partial uppers, 1 make-over.

15 partial uppers and lowers, 1 never finished.

19 full uppers and partial lowers, no make-overs.

33 partial lowers, 1 make-over.

7 full lowers, no make-overs.

Total, 324 plates and 13 make-overs, or practically 1 in 25.

Those acquainted with Dr. Ruyl's standard of work will understand he would not hesitate to make over a plate which many dentists would consider highly successful.

These figures appear to show that it costs dentists quite as much to make an unscientific denture and then "make it do" as to make a scientific denture in the first place. The fee for which the dentist can afford to make one or two unscientific dentures should not be confounded with the fees common for such dentures, but it is quite possible that a fee which is profitable for an unscientific denture is even more profitable for a scientific denture.

One of the injustices of inferior service is that the dentist must either charge the patient for whom he is successful a percentage of his losses on patients for

whom he fails, or lose the money from his own pocket. It would be fairer to all concerned to employ methods offering the greatest prospect of success, even at a somewhat higher fee. This should be a most excellent service-selling point to dentists confronted with the competition of low priced plates.

AVERAGE TIMES IN MAKING SCIENTIFIC DENTURES

The term "scientific dentures" is here employed to describe either partial or full dentures for which impressions have been taken with modelling compound or modelling compound and plaster, and have been finished with the mouth closed and under masticating strain, or trial-plate-bites have been finished in the mouth; for which the bites have been transferred from the mouth to the articulator by means of a face bow; for which an articulator has been employed which is capable of either producing the patient's habitual jaw movements or at least of fairly satisfactory lateral movements; and for which the teeth have been arranged to articulate instead of merely occluding.

No. 60. Examining mouth and taking a full upper or lower impression and bite and finishing in the mouth under masticating strain. Supplee method. Average time required by a large number of dentists, after they have become fairly familiar with the technic, as reported from Mr. Supplee's observations, 1 hour. This time is to be compared with the 35 minutes reported for

the impression and bite in No. 58. Costs as per table following.

No. 61. Taking full upper and lower impressions. Supplee method, which requires the making of the bite and the finishing of the impressions in the mouth under masticating strain. Average time of a large number of dentists, after they have become familiar with the technic, as observed by Mr. Supplee, 11½ hours. Costs as per table following.

No. 62. Chair time in making full upper and lower vulcanite dentures. Average of about 100 cases reported by Dr. James P. Ruyl. Examination and consultation, 30 minutes; modelling compound impressions, full upper and lower, 1 hour. Establishing occlusal plane, getting bite, making restorations, recording movements of the jaw with Gysi Adaptable Articulator, selecting mould and shade of teeth, 1:30. Trying in mouth and making slight changes, 30 minutes. A possibility of resetting some teeth or alterations for expression, 1 hour. Final try-in, 15 minutes; putting dentures in and instructing patient, 30 minutes. Total chair time, 5:15. Costs as per table following.

No. 63. Average laboratory time in 100 cases for which chair time was given in No. 62. Casting with artificial stone, 30 minutes. Making base plate and ridges, 30 minutes. Setting up teeth and waxing, 2:30. Re-waxing, putting on rugae and using carborundum powder, 45 minutes. Flasking and removing wax and

getting ready for rubber, 1 hour. Packing, reopening flask and removing excess rubber for vulcanizing, 1 hour. Scraping and polishing, 2:15. Total time, 8:30. Costs, exclusive of teeth, as per table following.

A comparison of the time costs in Nos. 58 and 59 with the costs in Nos. 62 and 63 shows that the office cost in producing scientific dentures is not much greater than that in producing unscientific dentures. It is, of course, difficult to make exact comparisons on a single denture, as given by Dr. Holroyd and the reports for full upper and lower dentures as given by Dr. Ruyl.

The reports sent to Dr. Holroyd record a chair time of 1:50, without the four return visits by the patient for further adjustment. Reports by Dr. Ruyl show 5:15 for two dentures or practically thrice the time which has been reported for the unscientific single denture. Two dentures for one mouth can be made in less time than a single denture for each of two mouths, since there are some operations in which time can be economized, such as recording the patient's habitual jaw movements, pouring models, etc. If a reasonable allowance be made for all economies of time which can be effected in the making of two dentures at one time, it is probable that the making of a scientific single denture of the highest type would not require more than 3 hours of chair time or 1:10 more than the average time required for the unscientific dentures.

The average laboratory time reported for the un-

scientific single denture is 4:58, as compared with 8:30 for two full scientific dentures. It is probable that an allowance of 4½ hours' laboratory time would be ample for the single scientific denture.

Under these conditions it seems that the scientific denture does not require more than 45 minutes more time than the unscientific denture. This report should be contrasted with that of operation No. 67, where the average total time for a single full upper vulcanite scientific denture is reported as 6 hours.

The following data on the times required for constructing dentures of the highest type, using Gysi Adaptable Articulator for determining and reproducing jaw movements habitual to the patient and arranging Trubyte teeth in harmony with these movements, is reproduced by the courtesy of Dr. W. E. Cummer, of the Royal College of Dental Surgeons, Toronto, from data gathered in connection with the work of the Post Graduate Classes which he has conducted. In these reports, all work is done by the dentist and his assistant, except vulcanizing and finishing, and speed has been made secondary to quality of service.

No. 64. Partial vulcanite dentures, carrying 6 teeth. Fifteen cases. Average total time, exclusive of vulcanizing and finishing, 5 hours. Costs, exclusive of cost of teeth, as per table following.

No. 65. Partial dentures on aluminum bases carrying 6 teeth. Fifteen cases. Average total time, exclusive

of vulcanizing and finishing, 6 hours. Costs, exclusive of cost of teeth, as per table following.

No. 66. Partial dentures on gold bases, carrying 6 teeth. Fifteen cases. Average total time, exclusive of vulcanizing and finishing, 9 hours. Costs, exclusive of cost of teeth and precious metals, as per table following.

No. 67. Full upper vulcanite dentures, highest class of construction using Gysi Adaptable Articulator. Twelve cases. Average total time, exclusive of vulcanizing and finishing, 6 hours. Costs, exclusive of cost of teeth, as per table following.

No. 68. Full upper dentures, aluminum bases. Highest type of denture construction using Gysi Adaptable Articulator. Twelve cases. Average total time, exclusive of vulcanizing and finishing, 9 hours. Costs, exclusive of cost of teeth, as per table following.

No. 69. Full upper denture, gold base. Highest type of denture construction using Gysi Adaptable Articulator. Eight cases. Average total time, exclusive of vulcanizing and finishing, 13 hours. Costs, exclusive of cost of teeth and precious metals, as per table following.

No. 70. Full upper and lower vulcanite dentures. Highest type of denture construction using Gysi Adaptable Articulator. Twelve cases. Average total time, exclusive of vulcanizing and finishing, 10 hours. Costs, exclusive of cost of teeth, as per table following.

No. 71. Full upper and lower dentures on aluminum bases. Highest type of denture construction using Gysi

Adaptable Articulator. Ten cases. Average total time, exclusive of vulcanizing and finishing, 16 hours. Costs, exclusive of cost of teeth, as per table following.

No. 72. Full upper and lower dentures on gold bases. Highest type of denture construction using Gysi Adaptable Articulator. Ten cases. Average total time, exclusive of vulcanizing and finishing, 22 hours. Costs, exclusive of cost of teeth and precious metals, as per table following.

CHAPTER SEVENTEEN

HOW THE MINIMUM FEES ARE COMPUTED

The minimum hourly fees which will maintain practices of from \$1,598 to \$10,000 annual gross receipts in 1,000 annual income hours have been tabulated and the figures are given on the page immediately following. These fees are exclusive of the cost of precious metals, and, properly, exclusive of the cost of teeth.

The hour fee has been divided by one-quarter, one-half and three-quarters to establish the minimum fees for 15 minutes, 30 minutes and 45 minutes. For periods of 5 and 10 minutes the minute fee has been multiplied by 5 and 10.

For the 20, 25, 35, 40, 50 and 55 minute periods, the 5 or 10 minute fee has been added to the 15, 30, or 45 minute fee. All fees have been made to end in a 0 or a 5.

The accuracy of these fees will be affected by the employment of operating assistants, or, in prosthetic work, by the employment of the services of commercial laboratories. But it should be remembered that probably half of the average times reported for operative work are from offices where competent lady assistants are employed.

MINIMUM FEES, 1,000 ANNUAL INCOME HOURS BASIS *
EXCLUSIVE OF THE COST OF PRECIOUS METALS AND PROPERLY EXCLUSIVE OF THE
COST OF TEETH

Annual Gross Receipts	Per minute for less than 15 minutes	5 minutes	10 minutes	15 minutes	20 minutes	25 minutes	30 minutes	35 minutes	40 minutes	45 minutes	50 minutes	55 minutes	60 minutes
\$ 1,598	\$.02 $\frac{1}{2}$	\$.15	\$.25	\$.40	\$.50	\$.65	\$.75	\$.90	\$ 1.00	\$ 1.15	\$ 1.30	\$ 1.40	\$ 1.45
2,000	.03	.15	.30	.45	.60	.75	.90	1.05	1.20	1.35	1.50	1.65	1.80
2,500	.04	.20	.40	.60	.80	1.00	1.15	1.35	1.55	1.75	2.00	2.15	2.30
3,000	.05	.25	.50	.70	.95	1.20	1.40	1.65	1.90	2.10	2.35	2.65	2.80
3,500	.05 $\frac{1}{2}$	.30	.55	.85	1.15	1.40	1.65	1.95	2.20	2.50	2.85	2.95	3.25
4,000	.06 $\frac{1}{2}$	.35	.65	.95	1.30	1.60	1.90	2.25	2.55	2.85	3.20	3.50	3.75
4,500	.07	.35	.70	1.00	1.35	1.70	2.00	2.35	2.70	3.00	3.35	3.70	4.00
5,000	.08	.40	.80	1.15	1.55	1.95	2.30	2.70	3.10	3.45	3.85	4.35	4.60
6,000	.10	.50	1.00	1.45	1.95	2.45	2.90	3.40	3.90	4.35	4.85	5.35	5.75
7,000	.11	.55	1.10	1.60	2.15	2.70	3.20	3.75	4.30	4.80	5.35	5.90	6.40
8,000	.13	.65	1.30	1.90	2.55	3.20	3.80	4.45	5.10	5.70	6.35	7.00	7.60
9,000	.14	.70	1.40	2.15	2.85	3.55	4.30	5.00	5.70	6.45	7.15	7.85	8.60
10,000	.16	.80	1.60	2.45	3.25	4.05	4.85	5.65	6.45	7.30	8.10	8.90	9.70

*All figures have been modified to end in a 0 or 5.

It is believed that no charge should be for less than 10 minutes.

AVERAGE COSTS OF OPERATIONS

EXCLUSIVE OF COSTS OF TEETH AND PRECIOUS METALS

(For details of operations, see Chapter Sixteen)

FEES

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Operation Number	Minimum income hour fee*	Minimum income minute fee*	Number of Cases	Average Time	ANNUAL GROSS RECEIPTS													
					\$1.598	\$2,000	\$2,500	\$3,000	\$3,500	\$4,000	\$4,500	\$5,000	\$6,000	\$7,000	\$8,000	\$9,000	\$10,000	
			..		1.45	1.80	2.30	2.80	3.25	3.75	4.00	4.60	5.75	6.40	7.60	8.60	9.70	
1	Scaling and cleaning		..	0.02½	.03	.04	.05	.05½	.06½	.07	.08	.10	.11	.13	.14	.16		
2	Simple prophylaxis		31	4:	.75	.90	1.15	1.40	1.65	1.90	2.00	2.30	2.90	3.20	3.80	4.30	4.85	
3	Prophylactic treatments		121	1:05	5.80	7.20	9.20	11.20	13.00	15.00	16.00	18.40	23.00	25.60	30.40	34.10	38.80	
4	Intermediate prophylaxis		79	9:25	1.60	1.95	2.50	3.05	3.55	4.10	4.35	5.00	6.25	6.95	8.25	9.30	10.50	
5	Advanced prophylaxis		9	21:	13.70	16.95	21.70	26.40	30.65	35.35	37.70	43.35	54.20	60.30	71.60	80.95	91.35	
6	Advanced prophylaxis with splints		20	24:45	30.45	37.80	48.30	58.80	68.25	78.75	84.00	96.60	120.75	134.40	159.60	180.60	203.70	
7	Devitalizing and filling anterior roots		60	30:	35.95	44.55	56.95	69.30	80.50	92.85	99.00	113.85	142.35	158.10	188.10	212.85	240.10	
8	Devitalizing anteriors, no exposure		48	50:	.75	.90	1.15	1.40	1.65	1.90	2.00	2.30	2.90	3.20	3.80	4.30	4.85	
9	Devitalizing exposed anteriors		59	25:	1.30	1.50	2.00	2.35	2.85	3.20	3.35	3.85	4.85	5.35	6.35	7.15	8.10	
10	Devitalizing infected anteriors		41	45:	.65	.75	1.00	1.20	1.40	1.60	1.70	1.95	2.45	2.70	3.20	3.55	4.05	
11	Treating putrescent anteriors		53	1:15	1.15	1.35	1.75	2.10	2.50	2.85	3.00	3.45	4.35	4.80	5.70	6.45	7.30	
					1.85	2.25	2.90	3.50	4.10	4.70	5.00	5.75	7.20	8.00	9.50	10.75	12.15	

*All figures have been modified to end in a 0 or 5

AVERAGE COSTS OF OPERATIONS—Continued

Operation Number	Number of Cases	Average Time	\$1.598	\$2,000	\$2,500	\$3,000	\$3,500	\$4,000	\$4,500	\$5,000	\$6,000	\$7,000	\$8,000	\$9,000	\$10,000
12 Devitalizing bicuspids and molars	218	1:05	1.60	1.95	2.50	3.05	3.55	4.10	4.35	5.00	6.25	6.95	8.25	9.30	10.50
13 Treating molars, and filling roots	92	1:45	2.60	3.15	4.05	4.90	5.75	6.60	7.00	8.05	10.10	11.20	13.30	15.05	17.00
14 Treating putrescent canals	25	1:25	2.10	2.55	3.30	4.00	4.65	5.35	5.70	6.55	8.20	9.10	10.80	12.15	13.75
15 Treating molars and amalgam filling	49	2:10	3.15	3.90	5.00	6.10	7.05	8.15	8.70	10.00	12.50	13.90	16.50	18.60	21.00
16 Treating putrescent teeth (average)	93	1:25	2.10	2.55	3.30	4.00	4.65	5.35	5.70	6.55	8.20	9.10	10.80	12.15	13.75
17 Simple extractions	39	:15	.40	.45	.60	.70	.85	.95	1.00	1.15	1.45	1.60	1.90	2.15	2.45
18 Single extractions	117	:30	.75	.90	1.15	1.40	1.65	1.90	2.00	2.30	2.90	3.20	3.80	4.30	4.85
19 Extracting 3 to 10 roots or teeth	2	:20	.50	.60	.80	.95	1.15	1.30	1.35	1.55	1.95	2.15	2.55	2.85	3.25
20 Somnoform extractions	387	:05	.15	.15	.20	.25	.30	.35	.35	.40	.50	.55	.65	.70	.80
21 Extensive Somnoform extractions	47	:20	.50	.60	.80	.95	1.15	1.30	1.35	1.55	1.95	2.15	2.55	2.85	3.25
22 Nitrous-Oxide extractions	27	:10	.25	.30	.40	.50	.55	.65	.70	.80	1.00	1.10	1.30	1.40	1.60
23 N ₂ O ₂ extraction	1	1:20	1.95	2.40	3.10	3.75	4.40	5.05	5.35	6.15	7.70	8.55	10.15	11.45	12.95
24 Ether extractions	2	2:45	4.05	4.95	6.35	7.70	9.00	10.35	11.00	12.65	15.85	17.60	20.90	23.65	26.70
25 Simple amalgam fillings	473	:25	.65	.75	1.00	1.20	1.40	1.60	1.70	1.95	2.45	2.70	3.20	3.55	4.05
26 Compound amalgam fillings	161	:45	1.15	1.35	1.75	2.10	2.50	2.85	3.00	3.45	4.35	4.80	5.70	6.45	7.30
27 Amalgam restorations...	57	:45	1.15	1.35	1.75	2.10	2.50	2.85	3.00	3.45	4.35	4.80	5.70	6.45	7.30
28 Synthetic fillings	81	:40	1.00	1.20	1.55	1.90	2.20	2.55	2.70	3.10	3.90	4.30	5.10	5.70	6.45
29 Ascher's enamel fillings...	29	:40	1.00	1.20	1.55	1.90	2.20	2.55	2.70	3.10	3.90	4.30	5.10	5.70	6.45
30 Simple gold foil fillings...	42	:30	.75	.90	1.15	1.40	1.65	1.90	2.00	2.30	2.90	3.20	3.80	4.30	4.85
31 Gold foil fillings	19	1:40	2.45	3.00	3.85	4.70	5.45	6.30	6.70	7.70	9.65	10.70	12.70	14.30	16.15

* All figures have been modified to end in a 0 or 5.

AVERAGE COSTS OF OPERATIONS—Continued

FEES

203

Operation Number	Number of Cases	Average Time	\$1.598	\$2.000	\$2.500	\$3.000	\$3.500	\$4.000	\$4.500	\$5.000	\$6.000	\$7.000	\$8.000	\$9.000	\$10.000
32 Simple gold inlays	72	1:20	1.95	2.40	3.10	3.75	4.40	5.05	5.35	6.15	7.70	8.55	10.15	11.15	12.95
33 Compound gold inlays	95	1:55	2.85	3.45	4.45	5.45	6.20	7.25	7.70	8.95	11.10	12.30	14.60	16.45	18.60
34 Extensive gold inlays	16	3:20	4.85	6.00	7.70	9.35	10.90	12.55	13.35	15.35	19.20	21.35	25.35	28.65	32.35
35 Contoured inlays	52	2:45	4.05	4.95	6.35	7.70	9.00	10.35	11.00	12.65	15.85	17.60	20.90	23.65	26.70
36 Average of above inlays	235	2:	2.90	3.60	4.60	5.60	6.50	7.50	8.00	9.20	11.50	12.80	15.20	17.20	19.40
37 Consultations	38	25	.65	.75	1.00	1.20	1.40	1.60	1.70	1.95	2.45	2.70	3.20	3.55	4.05
38 Shaping anterior roots	58	30	.75	.90	1.15	1.40	1.65	1.90	2.00	2.30	2.90	3.20	3.80	4.30	4.85
39 Fitting porcelain crowns and roots	58	35	1.15	1.35	1.75	2.10	2.50	2.85	3.00	3.45	4.35	4.80	5.70	6.45	7.30
40 Arranging, fitting and setting porcelain crowns . . . . .	..	1:15	1.85	2.25	2.90	3.50	4.10	4.70	5.00	5.75	7.20	8.00	9.50	10.75	12.15
41 Banded porcelain crowns	29	4:10	6.05	7.50	9.60	11.70	13.55	15.65	16.70	19.20	24.00	26.70	31.70	35.80	40.40
42 Porcelain crown, cast base	4	3:	4.35	5.40	6.90	8.40	9.75	11.25	12.00	13.80	17.25	19.20	22.80	25.80	29.10
43 Richmond crowns, complete	22	3:40	5.35	6.60	8.45	10.30	11.95	13.80	14.70	16.90	21.15	23.50	27.90	31.50	35.55
44 Fitting bicuspid porcelain crowns . . . . .	..	1:10	1.70	2.10	2.70	3.30	3.80	4.40	4.70	5.40	6.75	7.50	8.90	10.00	11.30
45 Cuspid gold crowns . . . . .	..	:50	1.30	1.50	2.00	2.35	2.85	3.20	3.35	3.85	4.85	5.35	6.35	7.15	8.10
46 Making bicuspid and molar crowns	63	1:	1.45	1.80	2.30	2.80	3.25	3.75	4.00	4.60	5.75	6.40	7.60	8.60	9.70
47 Making and setting bicuspid and molar gold crowns	141	1:25	2.10	2.55	3.30	4.00	4.65	5.35	5.70	6.55	8.20	9.10	10.80	12.15	13.75
48 Treating molar, making and setting crown	40	3:10	4.60	5.70	7.30	8.90	10.30	11.90	12.70	14.60	18.25	20.30	24.10	27.20	30.70
49 Treating and crowning molars	6	4:10	6.05	7.50	9.60	11.70	13.55	15.65	16.70	19.20	24.00	26.70	31.70	35.80	40.40
50 Removing bridge	5	25	.65	.75	1.00	1.20	1.40	1.60	1.70	1.95	2.45	2.70	3.20	3.55	4.05

* All figures have been modified to end in a 0 or 5

AVERAGE COSTS OF OPERATIONS—Continued

Operation	Number of Cases	Average Time	\$1,598	\$2,000	\$2,500	\$3,000	\$3,500	\$4,000	\$4,500	\$5,000	\$6,000	\$7,000	\$8,000	\$9,000	\$10,000
51 1 x 1 bridge, all gold; 1 crown, 1 dummy, no treatment	9	6:	8.70	10.80	13.80	16.80	19.50	22.50	24.00	27.60	34.50	38.40	45.60	51.60	58.20
52 1 x 1 bridge, 1 crown, 1 porcelain, no treatment	5	6:	8.70	10.80	13.80	16.80	19.50	22.50	24.00	27.60	34.50	38.40	45.60	51.60	58.20
53 2 x 1 bridge, all gold; 2 crowns, 1 dummy, no treatment	4	5:20	7.75	9.60	12.30	14.95	17.40	20.05	21.35	24.55	30.70	34.15	40.55	45.85	51.75
54 2 x 1 bridge, all gold; 2 teeth treated	1	6:15	9.10	11.25	14.40	17.50	20.35	23.45	25.00	28.75	35.95	40.00	47.50	53.75	60.65
55 2 x 1 bridge, 2 crowns, 1 porcelain, 1 tooth treated	1	7:05	10.30	12.75	16.30	19.85	23.05	26.60	28.35	32.60	40.75	45.35	53.85	60.90	68.70
56 2 x 2 bridge, all gold, no treatment	10	6:15	9.10	11.25	14.40	17.50	20.35	23.45	25.00	28.75	35.95	40.00	47.50	53.75	60.65
57 2 x 2 bridge, 2 crowns, 2 porcelains, no treatment	2	6:40	9.70	12.00	15.35	18.70	21.70	25.05	26.70	30.70	38.40	42.70	50.70	57.30	64.65
58 Chair time, single full vulcanite unscentific denture	150	3:10	4.60	5.70	7.30	8.90	10.30	11.90	12.70	14.60	18.25	20.30	24.10	27.20	30.70
59 Laboratory time, single full vulcanite unscentific denture	150	5:	7.25	9.00	11.50	14.00	16.25	18.75	20.00	23.00	28.75	32.00	38.00	43.00	48.50
60 Diagnosis and single impression. Supplee method .....	.....	1:	1.45	1.80	2.30	2.80	3.25	3.75	4.00	4.60	5.75	6.10	7.60	8.60	9.70

* All figures have been modified to end in a 0 or 5.

AVERAGE COSTS OF OPERATIONS—Continued

FEES

205

Operation Number	Number of Cases	Average Time	\$1,598	\$2,000	\$2,500	\$3,000	\$3,500	\$4,000	\$4,500	\$5,000	\$6,000	\$7,000	\$8,000	\$9,000	\$10,018
61 Diagnosis and full upper and lower impressions. Supplee method. . . . .	....	1:30	2.20	2.70	3.45	4.20	4.90	5.65	6.00	6.90	8.65	9.60	11.40	12.90	14.55
62 Chair time, full upper and lower scientific dentures	100	5:15	7.65	9.45	12.10	14.70	17.10	19.70	21.00	24.15	30.20	33.60	39.90	45.15	50.95
63 Laboratory time, dentures in No. 62.	100	8:30	12.35	15.30	19.55	23.80	27.65	31.90	34.00	39.10	48.90	54.40	64.60	73.10	82.45
64 Complete time, partial vulcanite dentures.	15	5:	7.25	9.00	11.50	14.00	16.25	18.75	20.00	23.00	28.75	32.00	38.00	43.00	48.50
65 Partial scientific dentures, aluminum bases	15	6:	8.70	10.80	13.80	16.80	19.50	22.50	24.00	27.60	34.50	38.40	45.60	51.60	58.20
66 Partial scientific dentures, gold bases . . .	15	9:	13.05	16.20	20.70	25.20	29.25	33.75	36.00	41.40	51.75	57.60	68.40	77.40	87.30
67 Full upper, scientific vulcanite denture	12	6:	8.70	10.80	13.80	16.80	19.50	22.50	24.00	27.60	34.50	38.40	45.60	51.60	58.20
68 Full upper, scientific denture, aluminum base .	12	9:	13.05	16.20	20.70	25.20	29.25	33.75	36.00	41.40	51.75	57.60	68.40	77.40	87.30
69 Full upper, scientific denture, gold base.	8	13:	18.85	23.40	29.90	36.40	42.25	48.75	52.00	59.80	74.75	83.20	98.80	111.80	126.10
70 Full upper and lower, scientific vulcanite denture	12	10:	14.50	18.00	23.00	28.00	32.50	37.50	40.00	46.00	57.50	64.00	76.00	86.00	97.00
71 Full upper and lower, scientific dentures, aluminum bases.	10	16:	23.20	28.80	36.80	44.80	52.00	60.00	64.00	73.60	92.00	102.40	121.60	137.60	155.20
72 Full upper and lower, scientific dentures, gold bases	10	22:	31.90	39.60	50.60	61.60	71.50	82.50	88.00	101.20	126.50	140.80	167.20	189.20	213.40

* All figures have been modified to end in a 0 or 5.

THEORETICAL AND ACTUAL FEES

The fees given for various forms of dental service, in the tables of this chapter, are the minimum fees which permit a good quality of service and which will maintain the practices at the gross incomes, in 2,000 office hours and 1,000 income hours per year. This number of office hours is believed to be the greatest which will permit the average dentist to maintain his physical vigor unimpaired, and participate in the pleasures, outside of work, which make life worth living, such as a normal family life, some leisure and recreation, attendance upon his professional society meetings, etc.

Only a limited acquaintance with dentistry, as it is practised to-day, is required to show that even these fees are obtained in only a minority of offices. As a rule, fees are much lower than these, and they include the cost of teeth or precious metals. Probably no question concerning any part of this book will be more frequently asked than one to the following effect, "How does it happen that dentists who are rendering good service at much lower fees, are enjoying life and are saving money?"

THREE VIEWS OF LOWER FEES

There are three answers which may be briefly given in substance and then illustrated from occurrences like those known to every dentist. The first answer is that many dentists are working much more than 2,000 hours

per year. The second answer is that in an appalling number of cases the quality of service is far below that contemplated here. The third answer is that while a dentist here and there is living comfortably and saving something annually toward a competency, more than a majority have too little money left at the end of the year to permit accumulating a competency. These answers amount to a denial of statements that dentists are rendering a good quality of service and earning a living and a competency, in a reasonable working period each year, at lower fees than those quoted here. Now for the illustrations.

LONG WORKING HOURS

Two illustrations of the annual working periods common in some practices, taken from widely separated localities, one city and one town, will suffice. Dr. A. recently came to the office to see if an estimate of his financial future could be made. He practises in a not-very-well-to-do section of New York City. His records were, in detail, about as follows: He works 52 weeks per year, 6 days per week, from 8 A. M. to 9 P. M., with two hours out for lunch and supper. On the seventh day he works from 8 to 1 without lunch. This makes 71 hours per week, or 3,694 office hours. He was unable to state how many of these were income hours, but as he works entirely without appointments, taking some of the patients always waiting, in order of arrival,

lunch-counter style, he thought most of his time was income producing.

Under these conditions, his annual gross receipts are about \$5,000 per year, of which about \$2,500 is remuneration. His fees are very low, and a prime requisite with all his service is that it shall be quickly performed. Passing over the effect of such service on patients, note the effects upon the dentist. He deplores the quality of service he renders and has retrograded in his professional skill. He has no leisure. His dental society begins its meetings at about 9 or 9:30 P. M. and closes at 1 or 2 A. M. He hardly knows his family. He can do no studying. In 9 years of such work he has saved the money invested in the household furniture, \$1,800, and about \$1,500 over. He is squandering his physical capital. He sees no hopes of an improved financial condition, and he is so weary of the treadmill that he feels he cannot much longer continue in the present way.

The second illustration is from a town on the prairies of the West. Dr. B works 50 weeks per year from 8 A. M. to 12:15, and from 1 to 6 P. M., each of six days per week. Four evenings per week he works from 7 to 9:30. This makes $65\frac{1}{2}$ hours per week, or 3,275 office hours per year. It is not known how many of the office hours are income hours. Under these conditions his gross receipts are \$4,800 per year, of which about one-half is remuneration on a rather incomplete estimate of expenses. This dentist sees his family on two evenings of

the week and on Sunday. Some of his fees are fairly profitable, but others are low, especially for fillings and treatments. His gross receipts are \$1.16 per office hour.

What attractions does the practice of dentistry under such conditions offer? Is the mere privilege of continuing to eat and breathe and look upon the fair world through office windows so sweet as to win men to this? "Is one never to be able to lie down upon the grass, but only under it?" What is life worth without some slight achievement of our aspirations, without home and family life, without associations save those of business? How under these conditions can dentistry compete with other vocations in attracting men too big to want to work all the time? What financial hope has the dentist who has established conditions he cannot continue when his physical strength fails even a little? Yet such conditions exist in greater or less degree in thousands of dental offices.

Dentists working under such conditions would be better off, financially, if dentistry were a unionized trade, with a wage scale of \$1.00 per hour from 8 to 12 and 1 to 5 on week days, with \$1.50 per hour for week day overtime and \$2 per hour for all time on Sundays and holidays. Under these conditions Dr. A would earn \$4,264 per year, net, against \$2,500 now, and Dr. B \$3,425, net, against \$2,400 now.

So much then for the time aspect of maintaining the practices on less than the average fees quoted here.

LOWERING THE QUALITY OF SERVICE TO FIT THE FEE

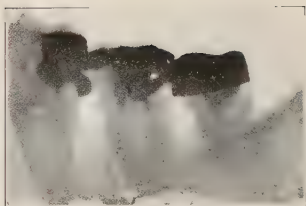
Practices can be maintained at the gross amounts given, in 1,000 income hours, by performing the operations in less than the average times given. There may be dentists so skillful that they can perform all the operations listed in less than the average times given, but they are so rare that it may be accepted as evident that a reduction of time will usually be accompanied by a reduction in quality of service; that the greater the reduction in time the lower the quality; and that the more extended the operation, the more opportunities there will be for quality reduction.

Unfortunately there are no standards for the different forms of service to which all dentists agree, saying 'Service as good as this is of standard quality; anything inferior is below standard.' Yet there are certain unwritten standards to which the majority subscribe. Thus, in cavity preparation for amalgam, dentists agree that the decay should be removed, the margins trimmed to develop what strength they are capable of, and that a compound filling should be contoured to protect the interdental papilla and to maintain proper occlusion of opposing teeth, and should be trimmed at the margin so as not to irritate the gum tissue. A considerable number of dentists report that such a compound amalgam filling requires an average period of 45 minutes and necessitates a fee for that period. Other dentists report that such fillings require only 10 minutes

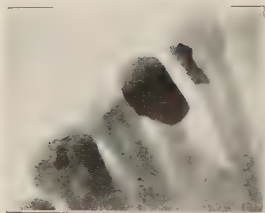
each and that an average of four or five per hour can readily be placed. Evidently 10 minute fillings can be placed at much less than the average fees quoted, and leave a profit more comfortable to the dentist's pocket than the memory of the fillings should be to his professional conscience.

One has only to look in the mouth of the average patient to see flat topped and flat sided fillings which fail in every qualification, except perhaps that of protecting the tooth against decay. And most dentists have removed fillings inserted by some lightning operator who, in his haste, either failed to remove the decay or removed the covering over the horn of a live pulp.

In the treatment of putrescent teeth, the evils of abbreviated service are much greater. It is being shown now that any tooth requires great care in treating and root filling, and that many cannot be surgically cleansed. One of the most careful operators claims that each canal requires an average of 1:25. There seems to be good evidence that imperfectly treated teeth may become foci for serious systemic infections. What then shall be said of the dentist who merely cleans out the pulp chamber and drenches the canals with "medicine" and a fluid root filling, or leaves them entirely open and fills the tooth? He can "treat teeth" at much less than the average fees given here, and to those who know not of his work, can safely denounce these fees as arbitrary, unnecessary and extortionate.



Hastily prepared fillings and crown that irritate and destroy tissues. A betrayal of the patient's interests.



The bicuspid crown nowhere nearly fits the root. Notice the destruction of the tissue on the side toward the cuspid.



Crowns like those shown on the molars are worse than none at all, because they cause loss of the teeth and bridge and discredit dentistry.



These crowns do not fit the roots. They irritated the tissues and caused loss of the teeth through pyorrhoea. It would have been better for the patient to pay a profit-bearing fee and receive good service.

SERVICE REDUCED IN QUALITY TO FIT LOW FEES

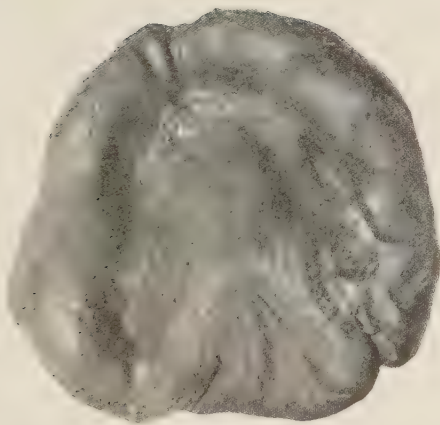
There lie within sight, as this is written, three gold shell crowns which are fair samples of reduced quality service. Two of them are illustrated on page 212. It is difficult to tell, from examination, whether they were made for these teeth, or got on by accident. The cervical margins make but slight pretense at fitting the necks of the teeth, and open spaces between teeth and gold alternate with projecting lumps of cement which were never cleared away. If these crowns were thrust up under the gum margins, they must have caused immediate, extensive and destructive inflammation. It is little wonder that the gum and process soon withdrew, and that the teeth loosened and were lost because of pyorrhoea.

These are not isolated instances. If you know the laboratory men well enough, they will tell you that every year thousands of orders are received to make gold shell crowns for which merely an impression or model of the still untrimmed tooth is sent. When the crown is received the dentist grinds the tooth until the crown will go on. Obviously, such service can be rendered at less than the fees in the tables and produce profits greater than those mentioned in the preceding chapters.

In bridgework, service is frequently worse, if that is possible. One prominent dentist recently completed the models for a bridge. The abutments were to be Richmond crowns on the upper cuspids, the upper incisors

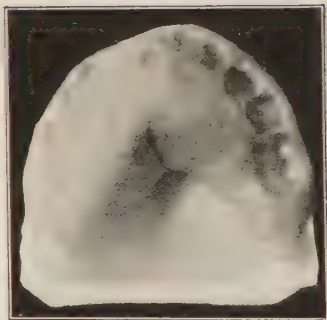
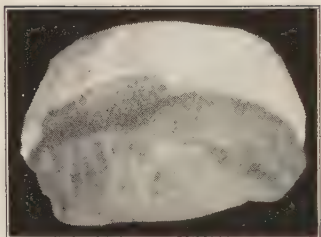
were to be supplied, as dummies. He completed the caps and bands, put them in place and took a plaster impression which extended only one tooth on one side beyond the caps and bands. He had the patient close the jaw into a roll of wax to form the bite. He poured the models, fitted them into the bite, mounted them on an articulator incapable of even correct opening and closing movements, to say nothing of lateral movements, and was about to send them to the laboratory, with merely the shade number, and an order to make the bridge. He was surprised when told that such instructions did not give the required length of facings, the amount of over-bite, the mesial slant or the forward inclination, and that a creditable bridge could not be made without this data. A dentist could complete his part of such a bridge in less than the average time given here and at far less than the average fee. Yet such cases are not uncommon. In three laboratories, the writer saw nearly a bushel of crown and bridge models no better than this, which had been sent with equally incomplete data.

In the field of denture service, both partial and full, human ingenuity seems to have run its limit in reducing to a minimum the amount of labor and skill that will secure a fee—almost any fee. The writer saw, in the laboratory of the Ransom & Randolph Co., a roll of beeswax into which a dentist had caused a patient to close both edentulous jaws. He took no impressions and made no other bite, but wrote the laboratory to make from this

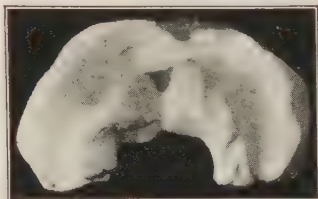
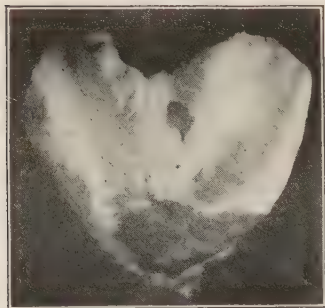


Impressions in unfitted and untrimmed trays, with such excess of material as distorts tissues and will prevent a denture fitting. Rapid service and apparently cheap to the dentist, but finally expensive to both patient and dentist.

SERVICE REDUCED IN QUALITY TO FIT LOW FEES

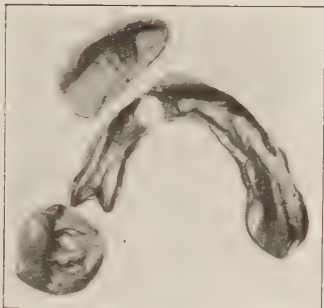


A full upper model and a mash bite. The length of the upper teeth and the median line are marked on the wax in the picture on the left. The dentist instructed the laboratory to finish the plate as, "with such complete directions, no try-in was necessary."

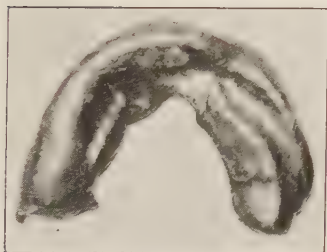


Two views of an impression for a partial lower plate, with clasps. Untrimmed tray, excess of material, displacement of tissues and practical certainty of a poor fit. No marks for limits of plate.

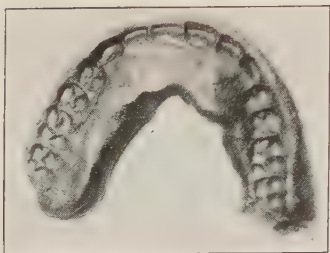
SERVICE REDUCED IN QUALITY TO FIT LOW FEES



Impression for partial lower plate. Tray cuts into tissues at three places and tissues will displace denture.



One side of mash bite for above case. Such a bite hinders good work more than it advances it.



Mash bite showing on one side the cusps of the upper artificial teeth and in the lower the remaining cuspid. No directions save shade number. Artificial dentures made on such limited data are usually failures.

SERVICE REDUCED IN QUALITY TO FIT LOW FEES

roll of wax, two full dentures "for a fat woman, 45 years old." No other instructions were given. The dentist criticized the laboratory's skill severely when he was informed that satisfactory dentures could not be made upon so slight a foundation.

Of course instances like the above are extreme. But impressions in untrimmed and unfitted trays, with an excess of material that so distorts the tissues that the plates cannot fit, are very common; and so are bites made from merely a roll of wax, with no determination of even the simplest data necessary to a successful denture, such as the desired separation of the jaws, the length of lip, the fullness of the cheeks, the depth of overbite, etc. If the dentist is a clever enough talker to persuade patients that dentures constructed on such data are the best that can be had, dentures can be sold at \$10, \$12 and \$15 each and net a profit, and the average fees quoted here will seem very high. Fortunately, data is at hand to show that at least 1 in every 4 such dentures is such an undisguisable, hopeless failure that it must be made over, with entire loss to the dentist of all the labor and talk devoted to it and any fee he may have paid the laboratory. On the other hand, data shows that only 1 scientific denture in 25 must be remade.

A DAWNING PUBLIC COMPREHENSION

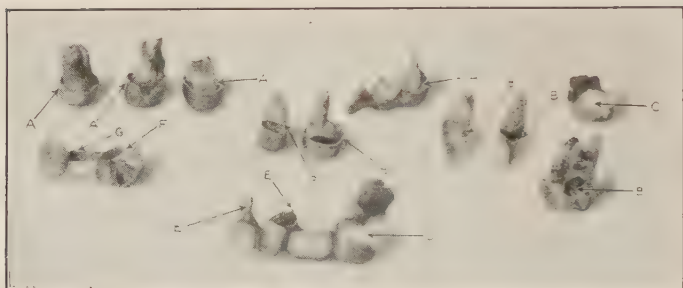
An understanding of the relationship between low

fees and inferior quality of service is developing itself in the minds of the public and in some of the public prints, and it is one of the penalties we, as a profession, pay for our short sightedness in not developing a proper understanding, that it is often expressed in such manner as to reflect discredit of the whole profession. One of the great American magazines, *Leslie's Weekly*, with a circulation of over 420,000 copies, in the course of an article by Kathleen Hills, presents the economic aspects of fees and quality in a way that cannot be controverted. One of the illustrations in the article shows crowns and bridges in which the service was certainly very inferior. It is reproduced on page 220.

Another illustration, reproduced on page 221, shows a collection of bridges removed from the mouth of one patient and the text accompanying it tells the story of the patient's impaired health during the time the bridges were worn and the recovery immediately following their removal and proper oral treatment. It tells also a similar story of the patient's wife.

We have no right to blame the public prints for reproducing illustrations of such service. We should, as a profession, render such service that illustrations of this sort could not easily be had, or that, if found, we could prove that they were rare exceptions.

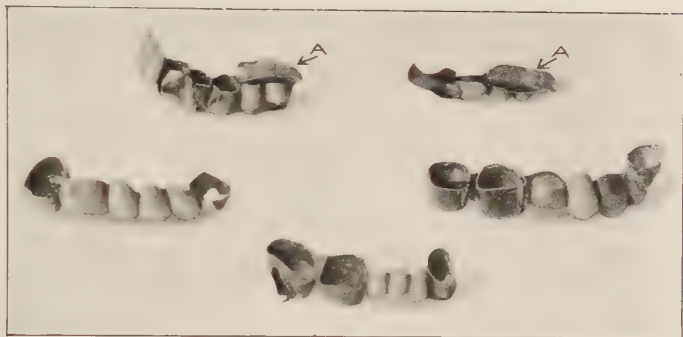
We ought to welcome any increase of public knowledge that enables the public to judge more intelligently the value of good dental service.



SPECIMENS OF INEFFICIENT DENTISTRY

Teeth which it was necessary to extract because of the inability of dentists to accomplish their work with a degree of efficiency that would remove all possibility of undermining the general health

The teeth marked A show the execrable work that passes as real dentistry. In some cases there is an overhang of a sixteenth of an inch, where food can accumulate and decay, destroy the tooth and breed germs that may be the cause of serious ailment. Teeth marked B show deterioration above ill-fitting crowns. C shows a crown of gold so thin it wore through in an unreasonably short time. The root canals in the tooth had not been properly filled and a molar that should have been saved had to be extracted. In D a heavy salivary calculus, or tartar, had been deposited on the ledge of the crown, caused recession of the gums and finally made it necessary to extract the tooth. E marks pivots blackened and discolored by decomposition set up in improperly treated teeth to which they were fitted; F, a crown of gold so thin it wore through; G, a bridge around the back of a sound tooth which was so poorly fitted it allowed the accumulation and decomposition of food that ultimately ruined the tooth.—*Leslie's Weekly*.



WHERE DISEASE LURKS

Formidable array of dentistry removed from the mouth of a man suffering with rheumatism. After removal he entirely recovered his normal health.

BAD DENTISTRY, BAD HEALTH

This illustration shows entire equipment of disease-breeding dentistry fitted into one unfortunate man's mouth. The patient had previously been in excellent health, weighed 200 pounds, but had an acute attack of rheumatism. In the care of an attendant he went to the dentist, with a temperature of 104, using a cane and with great holes cut in his shoes to relieve pressure on inflamed joints. His physician was treating him for rheumatism, giving palliative treatment. The dentist referred him to an X-ray specialist who located many diseased teeth and pus flowing from several. Examination showed that eleven teeth had been crowned with gold practically as thin as paper, without any proportion to the crowns of the teeth, so that the gold overhung and projected great shelves for the accumulation of deleterious and septic matter. Great degeneration of the alveolar process had taken place from the crowding of the crowns far under the gum line. All this work was immediately removed by the specialist, the abscesses drained and a number of the teeth extracted. The patient made an immediate recovery without drug medication.

The wife of this patient suffering with similar conditions, rheumatism and endocarditis, visited the same specialist. Her mouth presented, if anything, a worse condition than her husband's and her recovery after proper treatment was equally pronounced.—*Leslie's Weekly*.

In summing up, Mrs. Hills says:

“First-class dentistry cannot be done cheaply. That should be borne in mind. So that the wisest thing to do is to use preventive measures that will avoid the necessity of expensive fillings, crowns and bridgework. The low fees charged by the average dentist are positively inadequate to compensate him for the high class of service that should be given to every individual, for the tireless hours of work sometimes needed to properly execute the task, to clear the tortuous and intricate root canals containing nerve tissues. The average dental fee is often no more than a mechanic’s wage. The solution of the problem is in paying by the hour. Then the dentist will be free to treat every tooth properly without robbing himself or without detriment to his patient. There is little danger of a conscientious dentist taking more time than necessary, so that the patient need not fear being overcharged. Some of our leading dental practitioners are receiving as high as \$5,000 for the proper reconstruction of mouths of patients where the work of inefficient dentists resulted in failure. Economy in dentistry is not an interest-bearing investment.

“The public has been misled in many instances by the advertising methods employed by quack dentists. It is against these members of the profes-

sion that the public is particularly warned. The first-class dentist will not have to advertise in emblazoned letters; his work will be the testimony of his ability. Often, when it is too late, the gullible person, who has been duped by the alluring statements of the advertising quack, finds out to his lasting regret how much less expensive in the long run is the work of the first-class dentist."

AVERAGE FEES AND PATIENTS

The average fees here quoted are probably more economical to patients than lower fees. It might be fair to claim that patients pay ten times over, in things more precious than money, for every dollar in reduced fees. The patient who unnecessarily loses a tooth through a poorly made filling or crown, the patient whose appearance is marred by unskilled bridgework, and the patient who has to pay for 5 or 6 unscientifically made dentures before receiving satisfaction, pays very heavily in comfort, appearance and perhaps health.

SAVING THE MONEY

The last form of answer to the question about low fees on page 206 has to do with the statement that dentists operating at less than the average fees given here are saving money. This answer is more difficult than those which have preceded, merely because it deals with a phase of life which is more concealed. A dentist's ser-

vice can be seen and appraised; his savings may be known only to himself.

Moreover, saving is more dependent upon personal habit than upon the amount of the earnings. Many men can save a part of small earnings; as the earnings increase in amount, the difficulty of saving increases; and few can save anything from a large income.

It cannot be questioned that some dentists operating at low fees save money. A bachelor dentist, known to the writer, had a \$2,000 gross practice. He paid \$6 per month office rent, paid a relative \$3.50 per week for board, room, washing, mending, etc., and was popularly believed to have saved practically all the rest. An acquaintance sent the writer a letter, as follows: "I didn't do very well last year. I only took in \$600 but I saved \$400 of it."

If the average dentist is saving any money to speak of, he gives no evidence of it in the way he conducts the transactions in buying materials and equipment, in which he has opportunity to make far greater profits than in any other transactions common to his business. No data of this year or last is at hand, and the increasing interest in the business elements of practice has improved conditions, but three years ago the writer learned, on extensive inquiry, that about 75 per cent. of all the dental furniture purchased, was bought on the installment basis, generally at \$10 per piece per month, and that practically all dentists fell behind time in their

payments. Few dentists have anything the sheriff can seize except the mortgaged furniture. The dealer is compelled to recognize the dentist as a moral rather than a legal risk.

In spite of the profits which result from a deposit account, only 2 per cent. of the 10,000 dentists investigated maintained such accounts.

While some dentists pay their bills promptly at the end of the month, many do not, and the average time required by dentists is about 4 months. Dealers say that if they could collect once every three months all amounts due them which were supposed to be paid in 30 days, it would materially improve business conditions.

Very few dentists make any provision to recover the nearly \$4,000 invested in dental education and equipment, and many reach the close of their professional careers with less money than would equal the amount they have invested in dental training and equipment. They have had merely a living.

Dentists live better, on the average, than workers in the skilled trades, but no better than owners of small or medium size stores, etc.

If dentists, in general, are saving money their actions give no evidence of it. And many letters in the writer's mail indicate that not only such is not the case, but that a great number of dentists do not know how to order their business and personal lives to make saving possible.

WHAT ABOUT PATIENTS WHO CANNOT PAY WELL?

What shall be done for patients who cannot afford to pay for the best quality of dental service?

If the records of expense and of the time required for different operations are anywhere nearly correct, as they are given in the preceding pages, it is certain that the fees for many dental operations are too low now to permit the dentist to render good service and support himself through life in a reasonable yearly working period. If poor folks cannot pay the fees now common for good service, what shall be said about higher fees?

GOOD SERVICE AND THE POOR

Nothing is more certain than that the best forms of dental service cannot be rendered to people with small incomes. The improvements in dental knowledge and technique have changed the character of many operations so that, when well performed, they consume much more time than formerly. Orthodontia, the treatment of putrescent teeth and the making of fine inlays are examples of such service.

People with small incomes cannot have big gold inlays, carved to contact and articulation; they have to take amalgam fillings now, and some very poor ones. They do not have finely contoured crowns; they buy gold crowns, like those illustrated on page 212. They do not have extensive bridgework; they have partial or full vulcanite dentures. They do not have finely articu-

lated dentures, they get "plates." They cannot have careful root canal treatment; they order a gold crown at \$5.00, with the treatment "thrown in." The poor are not likely to be treated worse under any scale of fees than they are now; under a really intelligent fee system for well-to-do patients, they might be much better treated.

WHAT POOR PEOPLE CAN GET ELSEWHERE

People with small incomes are unable to purchase the best in many lines of merchandise. Not long ago the usual price for a good pair of shoes was \$3.50 or \$4.00. Returning from lunch to-day, the writer saw in a store window a card reading, "These shoes \$6.00, reduced from \$9.00." At \$9.00 these shoes are very satisfactory to those who can afford them; they are attractive in appearance, keep their form, are comfortable and wear well. They are not very expensive in the end because of their durability, but they are out of the reach of the man with a small income.

Most of us of middle age can remember back to the time when \$10.00 was considered a fairly high price for a boy's suit or overcoat. A well-to-do friend of the writer has just fitted out a 12 year old boy to return to school. Some of the items are as follows:

2 Suits	\$34.00
1 Overcoat	18.00
1 Pair of Shoes.....	5.50
1 Hat	2.50

The boy looks well, the clothes are a credit to him, and they may wear well, but they are entirely out of the reach of people with small incomes.

People with small incomes do not frequent stores where such prices are charged any more than they frequent aristocratic dentists. The fact that they cannot receive the best of dental service in return for small fees is harmonious with the fact that they do not receive the best in other lines in return for small prices.

WHAT THE PATIENT DOES NOT PAY, THE DENTIST PAYS

It is to be clearly understood that if a dentist renders a patient service at less than the cost of that service to him, including remuneration, he reduces his own remuneration, but not his expense. If the dentist is to render a good quality of service to poor people, such as well made amalgam fillings, articulated vulcanite dentures, etc., at less than the cost to him, he must be prepared to stand the loss. He must fortify himself against it. He must make financial preparation to render a certain amount of charity service without surrendering his living.

The dentist can do this in the way the surgeons do. He can charge certain well-to-do patients enough more than his minimum fees so that he can afford to work for less than his regular fee for other people, or he can aid in the support of a dental clinic by donations of money or time.

A prominent surgeon performed three operations under conditions which represent the way he proportions his fees to different patients. The first was for a very well-to-do man, representing the upper class of patients, and the fee was \$1,000. The second was for a person in comfortable circumstances and the fee was \$250. The third was for a mother who supports herself, and although the operation was much more extensive than either of the other two, the fee was \$20. He performs some operations entirely free. These three operations netted an average fee of more than \$420, which provided for the surgeon's remuneration at the rate of \$40 per hour.

There is no reason why the dentist should place his patients all in one financial class and serve them all at the same fees. They are of widely different classes, require different forms and qualities of service, and are able to remunerate the dentist at different rates.

FREE MEDICAL SERVICE

Consideration of the question of free service by dentists is often complicated by a knowledge that many members of the medical profession render much service to poor people without remuneration, and that men of high standing in the medical profession render free service to clinics and hospitals.

Probably half the free service rendered by physicians is to people who could pay but will not, and whom the

unbusinesslike methods common in the medical profession permit to escape payment. If only people unable to pay received free service, the average income of the medical profession would be much higher than it is. The fault, therefore, lies in no small degree with the business management by physicians.

Theoretically, the man too poor to pay, can receive medical or surgical service of the highest type, without payment. While this theory may work out in practice in many cases, it is frequently the case that the patient paying the low fee, or receiving charity service, does not receive anything like the same quality of medical or surgical service, either in the matter of diagnosis or attendance, that the patient able to pay well receives. One has only to be familiar with the details of ward service in some of the hospitals, to be sure of this.

THE ESTABLISHMENT OF DENTAL CLINICS

When the perception of the importance of the oral health of all members of the community has become as general and as strong as is the perception concerning many other forms of disease, dental clinics will be established either as community enterprises or by the beneficence of wealthy individuals. They may take the form of dental service in connection with hospitals already established or of separate undertakings.

It is probable that the dentist who is able to occupy his office hours profitably in his own practice, can ren-

der the greatest service to his community by making liberal financial appropriations monthly or annually for the support of such clinics. In this way he will discharge his duty toward that large element in the community who could not suitably reward his individual service, will support the work of those who seek to advance the welfare of the whole community, and will lend much more effective aid to such clinics than he would by offering to devote portions of his own time to service therein.

PART III

INCREASING THE PROFIT IN PRACTICE

“ORGANIZE
DEPUTIZE
SUPERVISE
REALIZE”

CHAPTER EIGHTEEN

BOOKKEEPING

From the data in the foregoing pages, it will be possible for a dentist to form an estimate of the expense of certain dental operations, and as to whether or not his present fees are profitable. Unless the dentist is willing to go to some trouble in bookkeeping, this is probably the best that can be done. The dentist who appreciates the controlling influence of good business management upon his financial success will not regard this average data as sufficient, but will wish to keep such business records as will determine the cost, to him, of each form of service, and enable him to establish fees which are fair to patients and himself. It is believed that the information in this chapter and that following, makes the keeping of proper business records so simple that no dentist can afford not to keep them.

A COMMON ATTITUDE TOWARD BOOKKEEPING

The keeping of business records is looked upon by many dentists as wholly unnecessary trouble. They are not trained in it. It differs from their professional work. It entails some daily labor, and seems to interfere with the proper activities of the office. If the

dentist is busy, he dislikes to stop between patients to enter any records save the very briefest. His secretary may be even busier than he is, and her work may last beyond the proper closing hour at night. It seems unfair, undesirable, and unprofitable to give her the additional work of keeping a complete set of books. At lectures upon this subject which the writer has given, no retort is more common than "You are trying to make bookkeepers of us. I, for one, am not a bookkeeper and do not propose to become one. I'm a dentist, and I'd rather fill teeth than keep books." And to him who spoke, this answer has been final. It has disposed of the question of business management in practice, for while bookkeeping is by no means all of good business management, it is so important a part that without good bookkeeping there cannot be good management of all parts of the practice.

BOOKKEEPING AND FEES

It cannot be too emphatically stated that a dental practice cannot be made properly profitable to the dentist unless it is conducted in the light of information which can be obtained only by bookkeeping. Fees which are fair to all patients and to the dentist cannot be established except as the result of bookkeeping. The competition-determined fees common in many localities have come into existence because business records, including cost records, have not been kept by dentists.

If dentists kept books, they would know what service costs, would perceive clearly the relation between cost and quality, and would not willingly quote fees lower than the cost of a good quality of service. The dentist who faces competition at unprofitable fees, needs to learn his own costs and help the other dentists to learn theirs. They can then compete on the basis of personality, salesmanship and skill, and coöperate in all other ways.

BOOKKEEPING AND SERVICE SELLING

No other element of knowledge will give a dentist more courage and ability to sell his services at proper fees than that gained from properly kept books in his own practice, whose showing cannot be disproved. The grim necessity which such books have shown for either quoting higher fees for good service, or reducing the quality of service, has spurred many a dentist to successful efforts in service selling he would not otherwise have made.

A dentist need not hesitate to state to patients that any form of service costs "so much," as the following incident from another line of activity shows. A firm in the West had long bought certain articles from a firm in New York. The Western firm, thinking it was paying too high a price, sent a buyer to investigate. The official of the New York firm called for the manufacturing records, and showed the buyer that he was pay-

ing only the costs and a fair profit. That completely satisfied the Westerners.

It is legitimate for a dentist to say to a patient "It is possible to treat this molar and make an inlay for almost any price you wish to pay, because I can devote to it the time you will pay for. But the records of a good many dentists show that it requires at least two hours to properly treat a molar, and two hours for an inlay, and this form of service will be more economical to you, in the end, than service which costs you less at first." Illustrations from the purchase of clothes, shoes, etc., which are more expensive at first, but more economical in the end, may be cited.

BOOKKEEPING AND PROPER REMUNERATION

Only as a result of information gained by bookkeeping can a dentist be sure of satisfactory remuneration in a reasonable working period. He has, probably, not more than 20 years of full practice at most, or about 20,000 income hours. The average must be less than 20 years. In this time, he must earn enough to support his office and family, to recover his investment and to accumulate a competency. Evidently the accomplishment of so much in so short a time requires intensive cultivation of all the time in practice. Such intensive cultivation can be accomplished only as the result of detailed knowledge of the business conduct of the practice.

The dentist then is confronted by the facts that he can determine his costs, quote profitable advance fees, apportion his own remuneration and accumulate a competency only by conduct which is guided by the knowledge obtained by bookkeeping.

TWO PURPOSES IN BOOKKEEPING

One is to maintain a record of all the service rendered each patient, in professional detail, so that the character, extent and cost of all past service can be referred to.

The other purpose is to keep the business records of the practice, the charges against patients and the payments by them, the expenditures for maintaining the practice and the amount available for the dentist's remuneration. Such records should be kept as will show the number of income hours, so that the expense and fees per income hour may be determined.

BOUND BOOK, LOOSE-LEAF AND CARD RECORDS

The professional records and business records may be kept in bound books, loose-leaf books or on cards. The Individual Chair Chart and Individual Laboratory Chart are in the form of slips, padded. A slip is detached for each patient.

THE NECESSARY BOOKS OR CARDS

In the system offered here, which so far as the business records is concerned, has been designed especially

for this book by the System Department of one of the leading firms of Chartered Accountants, the following books are necessary:

The Appointment Book in any of the usual forms.

The Consultation Chart or Examination Chart, in any of the usual forms.

The Patient's Ledger, in any of the usual forms.

The Business Record, illustrated and described in Chapter Nineteen, for the purpose of recording expense and income accounts and showing the condition of the practice as a business.

The use of the Individual Chair Chart and the Individual Laboratory Chart is not absolutely necessary, but is advised, especially the use of the Individual Laboratory Chart.

These books and their uses will now be considered in detail.

THE APPOINTMENT BOOK

The form of this book may advantageously differ under different conditions. For practices where there is an accounting department or where Individual Chair Charts and Individual Laboratory Charts are made out, the simplest form of appointment book will serve to show who is expected at different hours, and the amount of charges for service or credit for payments would not be entered in the Appointment Book, but in the Business Record.

In some practices, there are objections to entering the amounts of charges and payments in the Appointment Book. Many dentists who have grasped the opportunities for restoring function to an entire mouth, instead of merely filling cavities or replacing individual teeth, find themselves undertaking extensive restorations, the appointments for which may occur at intervals over several weeks. It is often desired to make appointments for, say, every Wednesday for three or four or six weeks and to enter these on the appointment book at the time of making. It is very common for something to occur in the meantime to cause the dentist or patient to desire to change the appointments, and if this happens frequently, the erasures and corrections make the book so unsightly that the dentist is glad to dispense with it rather than retain it as part of the bookkeeping system.

In practices where the dentist and the patient become very well acquainted, patients often look on the book while the dentist makes the entries. It is desirable that knowledge of one patient should not become the property of another.

In cases where the dentist desires to keep records of the "time in," "time out," charges, credits, descriptions of service and records of expenditures in the Appointment Book, it should have one page about 6 inches wide and 9 high, for each day. The day of the week and month should be printed plainly at the top of each page.

SATURDAY, JAN. 15, 1916

	Name	Operation	Debit	Credit
8- ¹⁵ _{8²⁵}	A. Patient	Treas W.L. 3	1	
9- ³⁵ _{9⁴⁵}	A. Patient	Drugs W.L. 7	1	
9- ¹⁵ _{9⁵⁵}	P. R. Dent	Rest P. Cr. W.L. 3	4	
10- ¹⁰ _{10¹⁰}	Miss A. T. Dent	Reg. Conts.	1	
11- ¹² _{11¹⁵}	T. L. Ent	Amal W.L. 4	7 50	
12:	Miss A. Laurie	on 4c		28
1- ¹³ _{1⁴⁰}	Mr. Miller	Am Imps W.P. 6	3 50	
1- ⁴⁰ _{1²⁵}	Mr. Albert	Handled for conals in P. 6	10 50	
2:	Mr. Cormaine	Ch in full		76
3- ³⁵ _{3⁴}	Miss Horner	Am Imps W.L. 6		
		3700. L.P. 5-6-7	3	
4:				
5:				
6:				
	Overhead Exp. Laundry	70 Clean	60	1 30
	" East El.	2 ¹⁰ Magazines	3 ²⁰	5 10
	John W. Jones	Paid turn on 4c		15

A specimen Appointment Book page showing appointments, "time in," "time out," the tooth treated, charges, credits, and, below, the notations of some expenditures. Form copyrighted.

It is unnecessary to have illustrations of the teeth at the top of each page. If the system of tooth identification employed is plainly outlined in the front of the book, it can be referred to at any time.

Below the hour for the last appointment of the day should be blank lines, upon which should be entered laboratory charges for the day. If desired, all expenditures can be noted here and transferred to the Business Record. A desirable form of page, filled in for a specimen day, is shown on page 242.

The loose-leaf Appointment Book, where pages can be destroyed or replaced at will, is perhaps neatest, cleanest and most convenient of all. The assistant can lay the page for the day before the dentist when the day commences, and all other pages can remain in the binder for use as desired.

THE INDIVIDUAL CHAIR CHART

If the Individual Chair Chart, as illustrated on page 245, is employed, one of these should be filled in with the patient's name, address and the "time in" by the secretary when the patient enters the chair. At the close of the service, either the dentist or his assistant may fill in the "time out," a description of the service, the charge therefor and any credit for payment. The chart can then be put aside until a quiet moment in the day permits entering the details in the Business Record, and posting to the Patients' Ledger.

THE INDIVIDUAL LABORATORY CHART

To make sure that all the items to be charged against the patient for laboratory work, or against a contract when a fee has been agreed upon, are entered, an Individual Laboratory Chart should be filled out with the name of each patient, at the beginning of the laboratory work, and each charge for materials or for time should be entered thereon, until the case is completed, when the summary can be entered in the Business Record. If this course is followed, it may be found that many moments not previously accounted for enter into the charge.

The Individual Laboratory Chart is shown on page 246. On the back of this chart is printed the form for charging all precious metals taken from stock for the case and crediting all returned stock after the case is finished. The form is shown on page 247.

THE CONSULTATION CHART

is a chart for noting in detail the condition of the mouth as a whole and of the various parts. It is advisable to fill out such a chart for each patient save those who are manifestly "shoppers." It permits more careful advice, helps guard against errors in estimates, impresses patients with intelligence and thoroughness, assists in establishing a charge for consultations, aids in selling service and guides future work intelligently.

INDIVIDUAL CHAIR CHART

N

Date.....191



Operation	Details	Tooth No.	Time		Debit		Credit	
			Hrs.	Min.	\$		\$	
Examination								
Time In								
Time Out								
Prophylaxis								
Pyorrhea Treat.								
Root Canal Treat.								
" " Fill								
Inlay								
" Cav. Prep.								
" Wax Model								
" Impression								
" Bite								
" Matrix								
Gold Filling								
Amalgam "								
Cement "								
Crowns								
Preparation								
Fit Band or Coping								
Gold								
Porcelain								
Bridge								
Partial Impression								
Full "								
Taking Bite								
Extraction								
Plates								
Splints								
Orthodontia								
Miscellaneous								

REMARKS:

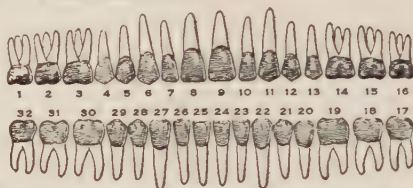
This Chart may be filled in for each patient, and the totals entered in the Business Record at any convenient time. Designed by Dr. W. F. Spies.

INDIVIDUAL LABORATORY CHART

Date

Patient

Case No.



	Kind of Work, Inlay, Crown, Bridge, Plate and Details	Tooth No.	Hours	Minutes
Pouring Model				
Separating				
Mount in Art.				
Making Bands				
Carving Cusps				
Swaging Cusps				
Soldering				
Investing				
Casting				
Polishing				
Occluding				
Articulating				
Grinding Facings				
Backing "				
Assembling Bridge				
Dressing Models				
Making Applian.				
Making Base Pl.				
Waxing Up				
Packing				
Vulcanizing				
Invest Impression				
Making Am. Die				
Preparing Am. Die				
Invest in Ring				
Drying				

REMARKS:

If this chart is kept with the patient's laboratory work, and all time employed on the work is entered hereon, the cost of the work can be accurately determined. Designed by Dr. W. F. Spies.

Case No.

MATERIAL

Operator

Date

Dr.

Cr.

DWT.

GRS.

COST

DWT.

GRS.

COST

24 K. Plate (Gold)						
22 K. Plate "						
20 K. Plate "						
Foil "						
22 K. Scrap "						
22 K. Solder						
20 K. Solder						
18 K. Solder						
Pl. Ir. W.						
" " 12 gauge						
" " 14 "						
" " 16 "						
" " 18 "						
" " 20 "						
" Wire						
" Plate						
Teeth						
Total						

REMARKS.

PRECIOUS METALS AND TOOTH RECORD

Charge the work with all precious metals and teeth taken from stock for it and credit all returned to stock from it. Charge the patient's account with the difference. Designed by Dr. W. F. Spies.

Consultation charts are of many forms and have different systems for indicating different teeth and the surfaces thereof. It is immaterial what system is used, provided it is understood by the dentist and his assistant, and can easily be made plain to a patient, a judge or a jury. Several forms are illustrated.

Similarly, any system of indicating the character of service that is readily intelligible to persons of average intelligence, may be adopted. It is not important to have any particular system, but it is important to have a legible, easily workable and easily explainable system.

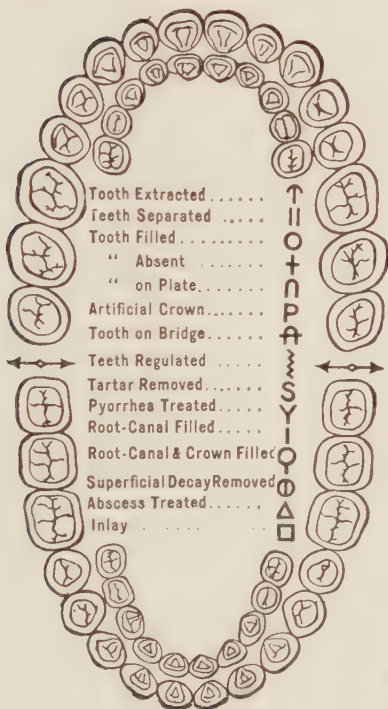
A SIMPLE SYSTEM OF TOOTH IDENTIFICATION

It has always seemed to the writer that the simplest and most satisfactory system of identifying teeth is to begin at the median line on each jaw and number backward, calling the central incisor on each side No. 1; the lateral, No. 2; the cuspid, No. 3; the first bicuspid, No. 4; the second bicuspid, No. 5; the first molar, No. 6; the second molar, No. 7, and the third molar, No. 8. If the initials, U. R. and U. L. are used for upper right and upper left, and the initials L. R. and L. L. for lower right and lower left, the identification is complete without the use of a diagram.

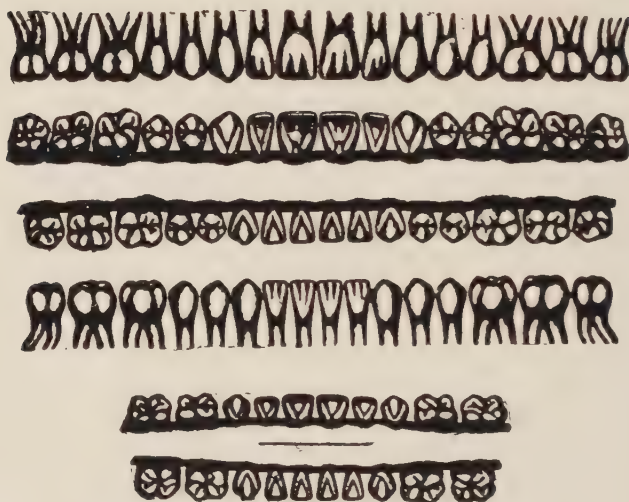
Thus the upper first molar on the left side is U. L. 6, the lower right second bicuspid is L. R. 5, etc.

The numbers may be written with the initials in this way, or by drawing a horizontal line to show the

EXAMINATION



Date _____ 191



Examination of M _____
teeth.

Remarks: _____

THE L. D. CAULK CO., MILFORD, DEL.

separation between the upper and lower teeth and one to show the division between the right and left halves of the arch, thus—|—. The location of any tooth is indicated by drawing these lines incompletely. Thus the upper left molar is |6, while the lower right second bicuspid is 5|. This system is very easy to explain to patients when identification is necessary, because they need only to find the centre of the mouth and count backward. This system is used in the entries shown on page 242.

The surfaces of the teeth may be indicated by the following letters: M =mesial, D=distal, La=labial, Li=lingual, Bu=buccal, Oc=occlusal.

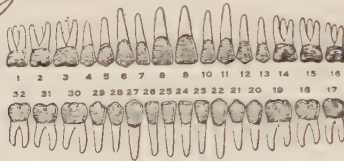
When a patient presents for consultation, the dentist should indicate upon a Consultation Chart, or have his assistant indicate at his dictation, all conditions in the mouth requiring service. If the chart forms one side of a ledger card, and has only one set of illustrations of teeth, Dr. Crisp's suggestion may be followed, and the location and extent of necessary repairs may be indicated by an outline of the cavity, etc. When the work is completed, the outline may be filled in.

Some dentists prefer to make out the Consultation Chart in pencil, post it to a similar form on the ledger card if service is ordered, and then destroy the original. This is Dr. Spies' method.

The opportunities for service selling as the result of a carefully made out Consultation Chart are but

CONSULTATION

Date.. *Aug 1* 191*5*
Mrs. John Dor



Deposit	X	
1. Crown	X	
2. Root	X	
Inflammation	X	3-5-14-30 very marked,
Bleeding	X	
Pain	X	3-5
Swelling	X	3-5-14-30
Pus	X	3-5-14-30-27-25-19-18-7
Abscess	X	5
Fistula	X	5
Gum receded	X	3-5-14-30-25
Sensitive		
1. Heat		
2. Cold		
Mal-occlusion	X	7-27
Excessive stress	X	7-27-3-5-6-14-30
Teeth loose	X	5-14-30-7
" to be extracted	X	5
" absent	X	4
Crowns		
1. Gold	X	5-14-30
2. Porcelain		
Inlays or fillings		
Bridges	X	4-5
Plates		
Patient suffering with		
pyorrhea	X	indefinite history
Treatment	X	none
Last visit to dentist	X	3 mos. ago
Care of mouth by patient	X	good
General Health	X	very good.

Remarks *Time 7:10*

Impressions for study models
Crowns 5-14 to be removed, overhanging edge
of bands, excessive stress.
Referred by John Smith.

The Consultation Chart used by Dr. W. F. Spies, filled in with a pencil for a practical case. The information is later posted to a similar form on one side of the ledger card, and this chart is destroyed.

little appreciated or employed. It presents a picture of the conditions in the mouth as neither dentist nor patients would otherwise see them.

THE CONTRACT FORM

If an agreement is made to render certain forms and amounts of service for a stated sum of money, an entry describing the service and fee and the dates and amounts of payments should be made in exact terms, in the patient's sight and should be shown to the patient and either verbal or written assent to it secured. This may seem to be an unimportant trifle, but experience shows that it is often important in securing unity of understanding and in avoiding causes of dispute or dissatisfaction. This method will do more to aid collections than any other one step, as is more fully described under the heading "Collecting the Fee."

The Contract form may be on a separate sheet or on the Consultation Chart or Ledger page. Specimen Contract forms are shown.

COLLECTING THE FEE

Many dentists who are skillful in rendering service are much less skillful in securing payment therefor. There are instances in which the greater part of the profit from a lifetime of service is charged on the books in uncollectible accounts.

That such a condition usually arises from the practice

of unbusinesslike methods by the dentist is proven by the fact that other dentists serving the same community do not always suffer to anything like this extent, or that a new dentist may come into such a community and suffer but little from loss of accounts.

In what is called "a private family practice," the patients may be divided into four financial groups, those who pay within a short time after receiving the service or the bill therefor; those who pay only after repeated bills or letters; those who wish to avoid payment and sometimes succeed; and charity patients from whom no pay is expected.

For patients whose credit is known to be good, no change in the usual procedure is advised, but for the slow-pay and non-pay, a change in methods will prove profitable. When such patients present for service, a Consultation Chart should be made out, the necessary work itemized and the amounts set down and stated to the patient. The dentist should then say, "You may pay this in either of two ways, so much now and the balance when the work is completed, or so much now and in installments as we go along, or within such a time." He should say this as though it was the most natural thing in the world that when he proposes to entrust his capital and services to a patient, he should arrange for payment, just as stores put on their bill-heads "Payment is expected in 30 days" and no one takes offense. He should note any resulting agreement

on the Contract form, show it to the patient and secure his or her consent, a satisfactory deposit and, if he thinks necessary, a signature.

Saying this in this way permits the dentist to maintain "the upper hand." It prevents the slow paying patient having his or her way. It is the opposite procedure to asking, "How would you like to pay this?"

Such a procedure by the dentist will have one of two effects, either of which is profitable. It will secure payment according to the agreement, or it will influence the patient not to have the service, because he finds he must pay for it. This custom is in use in many of the best managed practices, and has done away with practically all troubles about collections.

A prominent dentist tells this story of his education in the matter of collections. He succeeded his father in a practice where service was *The Thing* and the fee an incident, and not a very conspicuous incident. It was the custom in those days to rate patients according to their social standing, and to frequently make to desirable patients a present of mouth washes, etc., at the conclusion of a period of service.

When this dentist was new in practice, the daughter of one of his father's patients, of high social standing, came to him for service, the bill for which was \$98.50. As she was leaving the chair for the last time, she said, "You don't give us nice presents like your father did, do you?"

The dentist, recognizing the patient's social prominence and following in the footsteps of his predecessors, said "Yes, just wait a moment," and went to the drug store. As he tells it, he felt that the bill was now \$98.50 and might just as well be made \$100, so he bought \$1.50 worth of presents, gave them to the lady and added them to the amount of the bill. The lady never paid anything on account, and the doctor says she never intended to. This, and other similar instances, were the turning point in the substitution of business for social methods in his practice.

A certain busy dentist, confronted with the fact that a large amount of money was due him for service and probably uncollectible, was forced to seriously consider methods by which an increase of uncollectible debts could be prevented, and payment of "slow accounts" expedited.

When the method described above was presented to him, he hesitated, held by the glamour of his patient's social position. It seemed harsh to say to the lady whose limousine waited outside "You may pay so much down, and the balance in installments during the service." The limousine seemed to confront his utterance. He was finally made to see that the limousine might be the reason why such a saying was necessary, and that it was unfair for him to be expected to help support the car and chauffeur unless he had occasional use of them.

He was shown that this course is unnecessary with patients of known good credit, and that he might better eliminate from his practice those patients whose payments were slow or entirely lacking.

The fact is that people are worth to a practice, in a financial sense, just what they will pay and when they will pay it. If these who are able, pay well, the practice can establish a liberal policy toward those unable to pay well, and can be a source of great benefit to the community. If they do not pay, they narrow the dentist's life in every way, personally and in community usefulness.

Another dentist who has adopted this method of establishing the basis of payment before beginning service, writes, "It has changed my practice from being a social function for which people occasionally paid me a little money, into a matter of business, to my great profit."

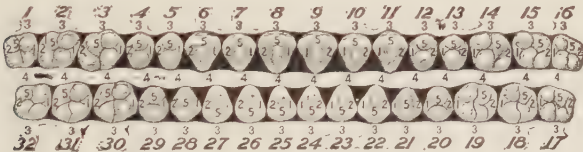
The testimony to the success of this plan is so nearly unanimous from all who have adopted it and used it with courtesy, intelligence and firmness, that one cannot escape the conclusion that it settles satisfactorily the matter of collections for service.

THE PATIENTS' LEDGER

It is necessary to have the details of all the charges against one patient and all the records of payments, on one page or card, to permit easy inspection of the ac-

count. The book in which such records are kept is called the "Patients' Ledger"; a card holding such a record is a "Patients' Ledger Card."

It is desirable that each account shall have an illustration showing all surfaces of a set of teeth so that a drawing may be made upon the figure of the tooth repaired, to show the location and extent of the repair. It is desirable also to have some indication as to the character of repair.



An illustration like this is used throughout the Bannister System of books

The efforts of different persons to devise an easy working and legible system of illustrations have led to the formation of many designs. One of the most widely known is Bannister's System. Dr. W. J. Holroyd, of Pittsburgh, has given much study to a system of records, and has designed one which seems very complete and practicable. Dr. W. T. McFadden, of Wilkinsburg, Pa., has also designed a ledger chart.

The posting of the Patients' Ledger may be from the Business Record or the Appointment Book, whichever the dentist has used for his book of first permanent record.

EXAMINATION.

Case No. 1013 Date 00/00/00 Referred by Dr.
Mrs. John Doe Referred by Mr. John Doe



(The numbers used below correspond to the tooth number in illustration)
 "X" signifies an impairment.

Deposit		
1. Crown	X	
2. Root	X	
Inflammation	X	3-5-7-14-18-19-25-27-30
Bleeding	X	
Pain	X	3-5
Swelling	X	3-5-14-30
Pus	X	3-5-7-14-18-19-25-27-30
Abscess	X	5
Fistula	X	5
Gum receded	X	3-5-14-25-30
Sensitive		
1. Heat		
2. Cold		
Mal occlusion	X	see models
Excessive stress	X	3-5-6-7-14-30
Teeth loose	X	3-7-14-30
" to be extracted	X	5
" absent	X	4
Crowns		
1. Gold	X	5-14-30
2. Porcelain		
Inlays or fillings		
Bridges	X	4-5
Plates		
Patient suffering with pyorrhea	X	indefinite history
Treatment	X	none
Last visit to dentist	X	3 months ago
Care of mouth by patient	X	fair
General Health	X	very good
Model No.	X	1013
Radiograph No.		
Photograph No.		
Bacteriological Ex.		

Impressions for study models--Crowns 5-14-30 to be removed. Over-hanging edge of bands, excessive stress.

One side of the ledger card used by Dr. Spies, showing how the data on the Consultation Chart is transferred to the permanent record. Form copyrighted by W. F. Spies, D.D.S.

Bridge-----3-4-5-6

Proverbs Tr. X

Remarks :

One side of the ledger card used by Dr. W. F. Spies, posted for an actual case, showing the contract form, the ledger account of itemized service, and the details of precious metals used. Form copyrighted by W. F. Spies, D.D.S.

Illustrations of the Ledger Cards used by Dr. W. F. Spies on pages 260 and 261 show, on one side, the permanent entry of the conditions in the mouth, as shown by the Consultation Chart; and, on the other side, the Contract Form, the itemized record of service and the itemized record of precious metals employed.

HANDLING THE CASH

The keeping of the business records will be made much easier and more accurate if all money received by the practice is deposited in the bank, and all payments, save those for less than one dollar, are by check.

Under such conditions, the check book is a valuable business record, if the deposit is itemized on the stub.

January 10, 1916

Cash

<i>T. Jones</i>	<i>3.25</i>	
<i>M. Smith</i>	<i>1.</i>	
<i>H. Verhoff</i>	<i>2.25</i>	
<i>L. Brown</i>	<i>4.</i>	<i>10.50</i>

Checks

<i>T. Lindy</i>	<i>10</i>	
<i>R. Horner</i>	<i>20.</i>	<i>30</i>
		<i>40.50</i>

AN ITEMIZED DEPOSIT RECORD IN CHECK BOOK

Such a record may support the dentist against a patient's mistaken idea that a certain cash payment was made on a certain day. Showing such a patient how all cash is itemized and deposited, and that no such item appeared about that date, will prove careful, businesslike methods and the improbability of an error by the dentist.

It facilitates the making of all the other business records.

The bank will furnish the depositor with a book in which each check bears his name and a number. Every time he sends out such a check he sends out his card. He can hardly think of a more desirable form of publicity, or more favorable conditions for sending it, or more desirable people to whom to send it than those to whom he will pay checks and those through whose hands these checks will pass.

The mere fact that he is of sufficient importance in the community to have printed and numbered checks is a sort of endorsement that favorably impresses many people.

Payments for all purchases should be by check. This facilitates bookkeeping, prevents double payments, settles disputes as to time, amount, etc., and the returned check with the payee's endorsement is the best of receipts for payment.

All payments of employees and of the dentist's remuneration should be by check.

Checks should be drawn for "Petty Cash" and cash kept at hand for stamps, expressage, laundry, etc.

All payments for the Refunding Fund should be by check, either to a different account in the same bank or, better yet, to a separate account in another bank.

The keeping of the business records of the practice, that is, the income and expense accounts, is described in the following chapter.

ACCOUNTS WITH CREDITORS

A few pages in the back part of the Patients' Ledger may well be taken for keeping ledger accounts with the principal creditors, such as dental dealers. An account should be opened with each, and the credits and charges to each, as shown by the entries in the Business Record, should be posted. The condition of each account may then be determined at a glance.

SENDING BILLS

Bills for dental services will be rendered in different ways according to the custom in the practice and any agreement with individual patients. If the payments are completed when the work is, a receipted bill should be handed the patient. If payments are not completed, a bill may be mailed immediately after the work is finished and a statement at the end of the month. Patients should be given to understand that the payment of their indebtedness to the dentist is quite as important as their payments to the grocer.

Bill forms printed or engraved with the dentist's name and office address should be employed.

Bills may be rendered to read merely "Professional Services, \$15," if desired, and with well-to-do patients this may be satisfactory, especially if the amount is small. But Dr. C. Edmund Kells called attention to the fact that if the bill is itemized in detail, patients feel that they have received much more for their money, especially if the amount is large. Thus, if a molar has been treated and an inlay made and the total amount is \$15, that patient may feel, upon receiving a bill reading, "Professional Services, \$15," that the amount of service was small and the bill high. But if the bill reads:

Jan. 1.	Treatment of molar	
" 5.	" " "	
" 8.	" " "	
" 15.	Fill roots molar	
" 20.	Impression for inlay	
" 26.	Set inlay and polish	
		\$15.

the patient will be immediately reminded that he made several trips, that the dentist did a great deal of work, and the fee will seem more reasonable.

Accounts which are not paid within a reasonable time should be put into the hands of an attorney for collection and no consideration of the social standing of patients who *will not pay* should be allowed to hinder such collection. The case is totally different with those

CHAPTER NINETEEN

BOOKKEEPING—CONTINUED

KEEPING THE BUSINESS RECORD

The following system of keeping the business records of a practice has been designed for this book by one of the leading American firms of chartered accountants. It provides for the keeping of the income and expense accounts not kept in the Patients' Ledger, and permits showing the profits from practice and the dentist's net worth, at any time, with the smallest possible amount of labor.

This system requires the use of the form illustrated on pages 286 to 291 and known as the Business Record which answers as a Day Book or Journal, Cash Book and Business Ledger all in one.*

The usual symbols of Dr., meaning Debit, and Cr., meaning Credit, have been done away with and have been replaced with a circle (O) and a square (■). There is no need for the dentist to bother with the terms debit and credit, unless he desires.

The system employed is that called "double entry," meaning that whenever an entry is made under a circle

* The publishers of this book will furnish the Business Record as a bound book, with pages like that illustrated in this chapter. Price on request.

in one account, a similar entry must be made under a square in another account. The totals of all the circle columns will always equal the totals of all the square columns, if entries are correctly made.

It is suggested that dentists simply follow the directions given for entries, until the plan develops itself in their minds.

Specimen entries for the principal transactions, together with the form of page required, are shown on pages 286 to 291 inclusive, at the end of the chapter.

TO OPEN THE BUSINESS RECORD

Take an inventory of the investment after the form given on page 61. Write the word "Investment" in the Description column, and enter the total amount of the investment in the circle (O) column of the Property account.

When the Inventory is taken, the dentist should deduct from the purchase price of all furniture and equipment, 10 per cent. for each year he has been in practice or has had each article in his possession. This practice should be followed when taking the Inventory on January 1st of each year.

Inventory the stock of precious metals and teeth and the more important Other Supplies. Write the word "Inventory" in the Description column and enter the value of the precious metals and teeth in the circle (O) column of the Precious Metals and Teeth account; and,

on the same line, enter the value of the Other Supplies in the circle column of the Other Supplies account.

Make a list of the amounts due from patients, leaving out the amounts known to be uncollectible. Write "Due from Patients" in the Description column and enter the sum due in the circle column of the Patients' Accounts.

Make a list of the debts owed by the practice (not the dentist's personal indebtedness). Write in the Description column the name of each firm to which money is owed and, on the same line, enter the amount of indebtedness in the square column of the Liabilities account.

Write in the Description column the words "Cash on Hand" and enter the amount in the circle column of the Cash account.

Add together the amounts in all the circle columns. Subtract from that sum, the sum of the amounts in all the square columns. Enter in the square column of the Personal Account, the amount obtained by such subtraction. This is the dentist's net worth at the time of opening the books. See Specimen Entry No. 1, page 286.

CHARGES AGAINST PATIENTS

When service is rendered to a patient, enter the date in the column at the left, the patient's name and the "time in," "time out" and description of the service in the Description column. Enter the amount of the charge in the circle column of the Patients' Accounts.

At the same time, and on the same line, enter the same amount in the square column under the heading Professional Service. See Specimen Entry No. 2. The charge for the service can be posted against the patient in the Patient's Ledger at any convenient time.

CREDITS TO PATIENTS

When a patient makes a payment at the same time he is charged for service, enter the charge in the manner described above, and on the same line, enter the amount of the payment in the square column of Patients' Accounts and the circle column of the Cash account. See Specimen Entry No. 2.

When service is rendered for a transient patient, with whom it is not desired to open an account, it will of course be paid for at once. Write the date, description of service, etc., as usual. Enter the amount of the charge and payment in the square column of the Professional Service account and the circle column of the Cash account. See Specimen Entry No. 3.

Whenever a patient makes a payment on account, write the date and patient's name and enter the amount in the circle column of the Cash account, and, on the same line, in the square column of the Patients' Accounts. See Specimen Entry No. 4, page 286.

ALLOWANCES TO PATIENTS

The patient's name is written in the Description column with a short explanation of the allowance. The

amount of the allowance is entered in the square column of the Patients' Accounts, and in the circle column of the Overhead Expense account.

This account may become important, as follows: If all the details of cost on a contract are entered by charging the patient with the time consumed and materials used, it may often be found that the charges are in excess of the amount of the contract. To bring the final charge down to the contract, write in the Description column, "John Doe, Allowance," extend the amount of excess in the square column of Patients' Accounts, and, in the circle column of the Overhead Expense account. As each such allowance means a reduction of the dentist's remuneration, the habit of keeping exact charges for time and materials on contracts may prove very instructive. See Specimen Entry No. 5.

If a patient's account becomes uncollectible, it should be written off by entering the patient's name in the Description column and the amount of the account in the square column of the Patients' Accounts, and in the circle column of the Overhead Expense account. See Specimen Entry No. 5.

All of these entries should be posted to the patient's account in the Patients' Ledger in the usual way.

ENTERING CASH PURCHASES

If precious metals and teeth are purchased for cash, a notation showing the character of what is purchased

should be made in the Description column, the amount entered in the square column of the Cash account, and the same amount entered, on the same line, in the circle column of the Precious Metals and Teeth account.

If other supplies are purchased for cash, the character of the purchase is noted in the Description column, the amount is entered in the square column of the Cash account, and, on the same line, in the circle column of the Other Supplies account.

If new furniture or equipment is purchased for cash, the character of the purchase is noted in the Description column, the amount is entered in the square column of the Cash account and the same amount, on the same line, in the circle column of the Property account.

If a single cash payment covers the purchase of precious metals and teeth, other supplies and new furniture or equipment, the total payment should be entered in one sum in the square column of the Cash account and entries made, on the same line, in the circle columns of the Precious Metals and Teeth account, the Other Supplies account and the Property account, for the proportion to be charged to each. See Specimen Entry No. 6.

ENTERING A DEPOSIT ACCOUNT

If \$95 cash is deposited with a dealer to secure a credit for \$100, against which to purchase, write in the Description column the dealer's name and the words "Deposit Account" and enter the amount of \$100 in

the circle column of the Liability account. Enter the sum of \$95 in the square column of the Cash account, and \$5 in the square column of the Personal account. See Specimen Entry No. 7, page 286.

Thereafter enter the value of goods received against the deposit in the circle column of the appropriate account (either Precious Metals and Teeth, Other Supplies or Property) and in the square column of the Liabilities account, in the usual way.

ENTERING PURCHASES ON CREDIT

If precious metals and teeth, or other supplies, or new furniture or equipment are purchased on credit, the name of the firm from which they are purchased should be entered in the Description column together with an explanation of what was bought, the amount entered in the square column of the Liability account, and, on the same line, in the circle column of either the Precious Metals and Teeth account, the Other Supplies account, or the Property account, according to the nature of what was purchased. See Specimen Entry No. 8.

A convenient way of entering the purchases is to hold the invoices received from dealers until the end of the month, and make entries for the entire amount in the square column of the Liability account, and in the circle columns of the various accounts on one line, as described in the paragraph just above. See Specimen Entry No. 9, page 288.

This form of entry of purchases on credit will not be affected by the fact that notes may have been given in payment.

When purchases on credit are paid for, the name of the firm to which payment is made is entered in the Description column and the amount of the payment is extended in the circle column of the Liabilities account, and, on the same line, in the square column of the Cash account. It may be found convenient to write the word "Paid" opposite each liability when paid, to show which are discharged. This does not affect the form of entry. See Specimen Entry No. 10.

ENTERING LABORATORY BILLS

This account records expenditures to outside laboratories. The services covered by such expenditures are usually partly for materials and partly for labor.

When laboratory service is purchased on credit, write the name of the laboratory in the Description column with an explanation of what is purchased, as A. Laboratory Co., Trubyte upper vulcanite denture for Mrs. A. B. C.," and enter the amount of the laboratory's bill in the circle column of the Laboratory Bills account and in the square column of the Liability account. See Specimen Entry No. 11.

If laboratory service is purchased for cash, write the explanation in the Description column, enter the amount in the circle column of the Laboratory Bills account

and in the square column of the Cash account. See Specimen Entry No. 12, page 288.

THE OVERHEAD EXPENSE ACCOUNT

As per the list of items on page 62, the Overhead Expense account is to be charged with the amount necessary to refund the investment, the amount necessary to offset the depreciation of the furniture and equipment, and all expenditures for the rent, heat, 'phone, electricity and gas, wages to assistants, laundry, publicity, postage and express, taxes and insurance, books, magazines and stationery, society dues or contributions and miscellaneous items of expense.

To enter a cash payment for any item of overhead expense, write the explanation in the Description column, as "Rent" or "Electricity and Gas" or "Society dues," and, on the same line, enter the amount in the square column of the Cash account and the circle column of the Overhead Expense account. See Specimen Entry No. 13.

If an item of overhead expense is to be paid at some future time, enter the name of the creditor in the Description column with an explanation, as "John Jones & Co., coal," and extend the amount in the circle column of the Overhead Expense account, and in the square column of the Liabilities account. See Specimen Entry No. 14, page 288.

The method of entering charges for renewals and re-

pairs is explained under the heading, "Entering Charges Caused by Depreciation."

ENTERING CHARGES CAUSED BY DEPRECIATION

In order to simplify as far as possible, the bookkeeping system, no effort has been made to set up a separate fund from which to pay for renewals and repairs to furniture and equipment, although provision has been previously made to charge the Overhead Expense with 10 per cent. of the investment in furniture and equipment to defray the cost of keeping the furniture and equipment in good condition.*

If the system of estimating office costs, previously outlined, is adopted as a basis for the schedule of fees, the fees will provide money for such renewals and repairs, and this money will go into the Cash account of the practice.

When renewals or repairs are purchased for cash, describe the repair in the Description column and enter the amount in the circle column of the Overhead Expense account and the square column of the Cash account.

When renewals and repairs are made on credit, write in the Description column an explanation, as, "The Dentists' Supply Company, Repairing Hand Piece," and enter the amount, on the same line, in the square column of the Liabilities account, and in the circle

* See form on page 62.

column of the Overhead Expense account. See Specimen Entries Nos. 15 and 16, page 288.

There may be some years when the repairs and renewals will not require the expenditure of 10 per cent. of the amount invested in furniture and equipment, but the unexpended money should be allowed to accumulate in the Cash account of the practice, as it will be needed sooner or later. In other words, the dentist should not draw all the available cash for personal uses.

ENTERING THE REFUNDING INVESTMENT CHARGE

In order to simplify the bookkeeping system, a charge against the practice equal to 5 per cent. of the total investment has not been set up into a separate fund, but has been considered as an item of the Overhead Expense account and has formed part of the basis for estimating fees.

It is advised that the Business Record be balanced at the close of each calendar month, and that the dentist then withdraw from the cash of the practice an amount equal to one-twelfth of the annual sum necessary to refund his entire investment, as shown by the form on page 62. This money should be deposited in another bank, in the dentist's name, and no record of its disposition will appear again in the books. The entry for withdrawing this amount is accomplished by writing in the Description column the dentist's name and "Refunding account," and entering the amount on

the same line in the circle column of the Overhead Expense account and the square column of the Cash account. See Specimen Entry No. 17, page 288.

THE DENTIST'S REMUNERATION

Whenever the dentist draws money from the funds of the practice, it should be taken from the office cash account, and should not re-appear in the office accounting system. This is best accomplished by having the dentist maintain a separate cash account for all personal expenditures.

Whenever the dentist receives money from the practice, his name should be entered in the Description column, and the amount extended in the square column of the Cash account and the circle column of the Personal account. See Specimen Entry No. 18.

ENTERING SALES OF MATERIALS

If Precious Metals or Teeth are sold for cash, the amount of cash received is entered in the circle column of the Cash account and, on the same line, in the square column of the Precious Metals and Teeth account. If precious metals or teeth are returned to a dealer for credit, the name of the dealer is entered in the Description column, the amount of the credit in the square column of the Precious Metals and Teeth account, and, on the same line, in the circle column of the Liabilities account. See Specimen Entry No. 19, page 288.

If furniture or equipment is returned to a dealer for credit or as part payment for purchases, an entry should be made charging the dealer with the value of what is returned. This is done by entering the dealer's name and an explanation in the Description column, the amount in the circle column of the Liabilities account and, on the same line, in the square column of the Property account. See Specimen Entry No. 20.

When any furniture or equipment is sold or returned for credit, an entry should be made to credit the Property account with the difference between the purchase price (as reduced 10 per cent. a year by depreciation) and the price at which it is sold. Specimen Entry No. 20 records the return of a cabinet purchased four years ago for \$100 and now sold for \$20. If the annual inventory shows a depreciation of 10 per cent. per annum or, on this cabinet, \$10 for each of the four years the cabinet was owned, \$40 has been charged off against it in this way, and previous to the sale it stood inventoried at \$60. When sold for \$20, a \$40 loss ensued. Specimen Entry No. 21 credits the Property account with the amount of this loss and charges it to Overhead Expense.

If any other supplies are returned to a dealer for credit, the dealer's name is entered in the Description column and the amount entered in the circle column of the Liabilities account, and, on the same line, in the square column of the Other Supplies account.

TO DETERMINE THE NET PROFIT

The purpose of keeping the Business Record is to permit the dentist to quickly determine the amounts due him from patients, the amounts due from him to others, and the net profit or loss after all the expenses of conducting the practice have been paid. This information is obtained by a process called "Balancing the Book," and it is one of the beauties of this system that this operation is reduced to the simplest possible terms. The process is as follows:

To balance the Patients' accounts, write off any accounts due from patients which have become uncollectible since the Record was opened, in the manner described under Allowance to Patients. Add up each column and put the total just below the last entry in each column, in small figures in lead pencil. The difference between the totals of these two columns is the amount due from patients.

To balance the Professional Service account, add the amounts in the square column and put the total just below the last entry, in small pencil figures. Write in the Description column the words, "To Balance Professional Service account," and enter in the circle column of the Professional Service account the amount shown by the pencil footing of the square column of that account. On the same line, make an entry of the same amount in the square column of the Personal account. See Specimen Entry No. 22.

To balance the Cash account, add up each column and put the total of each column just below the last entry in the column in small pencil figures. The difference between these columns should agree with the amount of cash on hand and in bank.

To balance Precious Metals and Teeth account, add up the circle column and place the total in small pencil figures below last entry. Take an inventory of the value of the Precious Metals and Teeth on hand at purchase prices and write in the Description column the word, "Inventory," and enter the amount of the inventory in the square column of the Precious Metals and Teeth account. Add up the square column and ascertain the difference between the totals of the circle and square columns in this account, and write in the Description column, "To Balance Precious Metals and Teeth"; then enter the amount of the difference between these two columns in the square column of the Precious Metals and Teeth account, and, on the same line in the circle column of the Overhead Expense account. See Specimen Entry No. 23.

To balance Other Supplies account, take an inventory of the more important or valuable supplies on hand, at purchase prices, write in the Description column, "Inventory," and enter the amount in the square column of the Other Supplies account. Add up the circle column and put the total, in small pencil figures, just below the last entry. Do the same with the square column. As-

certain the difference between the columns in this account, and write in the Description column, "To Balance Other Supplies," and enter the amount of the difference in the square column of the Other Supplies account, and in the circle column of the Overhead Expense account. See Specimen Entry No. 24.

To balance the Laboratory Bills account, add up the circle column and enter the total in small pencil figures just below the last entry. Determine the amount necessary to equalize the square and circle columns of this account. Enter that amount in the square column of the Laboratory Bills account, and in the circle column of the Overhead Expense account. Write in the Description column "To Balance Laboratory Bills account." See Specimen Entry No. 25.

To balance the Overhead Expense account, add up the circle column and place the total in small pencil figures, just below the last entry in that column. In the Description column write, "To Balance Overhead Expense account," and enter in the square column of the Overhead Expense account, the amount of the pencil total of the circle column of that account. On the same line, enter the same amount in the circle column of the Personal account. See Specimen Entry No. 26.

The entries just described have transferred to the Personal account the totals of all accounts showing profits, losses, or expense. The balance from the Professional Service account is in the square column. The

balance from the Overhead Expense (which includes the balances from the Precious Metals and Teeth, Other Supplies and Laboratory Bills accounts), is in the circle column of the Personal account.

BALANCING THE OTHER ACCOUNTS

If it were not for the fact that the circle column of the Personal account shows the amounts drawn from the practice by the dentist for personal use, the difference between the two columns would represent the net profit or loss from the conduct of the practice since the business record was opened. If the total of the square column of the Personal account is greater than that of the circle column, the net profit can be obtained by adding the amounts withdrawn during the time the books have been open, to the amount of the difference between the two columns and subtracting the amount of the initial investment as recorded in the opening entry.

A loss is shown when the total of the circle column exceeds the total of the square column.

The Patients' account, Cash account, Liabilities account and Property account are not balanced in the same way that the Professional Service and Overhead Expense accounts have been or in the manner employed for the Precious Metals and Teeth account, Laboratory Bills and Other Supplies. The totals may be carried forward in all the columns from month to month, until the end of the year, merely writing them below the rul-

ings as described later. Or all these accounts may be balanced by carrying forward the difference between the square and circle columns in each account as a balance, as shown on pages 290 and 291, after the accounts are ruled off, as described below. The balance will usually be in the circle column of each account except the liabilities, in which it will be in the square column.

The Business Record should be balanced at the close of each calendar month.

RULING OFF THE ACCOUNTS

The accuracy of the entries can be determined before the totals are entered in ink or the accounts ruled, by the following method. When the Inventory in the Precious Metals and Teeth account and in the Other Supplies account have been entered and the balancing entries made, as shown on pages 290 and 291, the sum of all the square columns will exceed the sum of all the circle columns by just the amounts of the Inventory in the Precious Metals and Teeth account, and the Other Supplies account.

When all the accounts have been totalled and balanced as described above, they should be ruled off, as shown on pages 290 and 291.

To do this a single line is drawn below all the accounts, as shown, and the totals entered in ink. Just below the totals, a double line is drawn. In the Patients'

account, the Cash account, the Liabilities account, the Property account, the Precious Metals and Teeth account, the Other Supplies and the Personal account there should be balances to carry forward into the new period.

It is better to rule all the accounts off on one level and then draw lines to fill in any empty space between the last entry and the ruling, as shown on pages 290 and 291, than to rule each account off where the entries stop. This makes the starting of the new period much easier.

The amounts of the inventory in the Precious Metals and Teeth account and the Other Supplies account are carried forward as the first entries in the circle columns of their respective accounts.

When this has been done, the total of all amounts in all the circle columns, should equal the totals of all amounts in all the square columns. See pages 290 and 291.

At the end of the calendar year, a statement showing the gross amount of practice, the cash receipts, the amount due from patients, the total expense, the amount withdrawn as remuneration and the profit above the remuneration can be made.

At the beginning of each year, take a new inventory, reducing the value of the furniture and equipment by at least 10 per cent.

THE BUSINESS RECORD

Date 1916	DESCRIPTION	PATIENTS' ACCOUNTS		PROF. SERVICE		CASH		OVERHEAD EXPENSE	
		Charged ○	Credited ■	To Pers. Acct. ○	Credited ■	Received ○	Paid ■	Charged ○	By Pers. Acct. ■
Jan 1	Investment								
	Inventory								
Jan 1	Due from patients	68000							
	The Dentists' Supply Co.								
	L. D. Baulch D. D.								
	Cash on hand					275 00			
No. 1	Net worth								
No. 2	John Hood 8 ³⁰ 9 ¹⁵	4 50			4 50				
	W. R. C. sec. prop & imp								
	Deposit		10 00			10 00			
No. 3	Mary Black								
	Ground off U. L. 4-				50	50			
No. 4	John Smith on 9c		15 00			15 00			
No. 5	John Dr. Allowance to bal. 7c		7 50					7 50	
	B. Store, Uncollectible		21 00					21 00	
	A. Brown, Charity		2 00					2 00	
No. 6	Box 2x20 Trunk etc						8 00		
	subscr & cabinet (D. S. Co.)						52 00		
No. 7	The Dentists' Supply Co. Deposits 7c						95 00		
No. 8	The Dentists' Supply Co.								
	50c alloy 1 dent solder								
	Forward	684 50	55 50		5 00	300 50	155 00	30 50	

SPECIMEN ENTRIES

The two pages here shown, taken together, represent two opposite pages in the Business Record. Entries must be read across both pages. Entry numbers in date space at left of lines.

- No. 1—Entry for opening the Business Record. Description on page 268.
 No. 2—Entry for charge against patient for service and credit for payment.
 No. 3—Entry for service for transient patient with whom no account is to be

PREC. MET. and TEETH		OTHER SUPPLIES		LABORATORY BILLS		LIABILITIES		PROPERTY		PERSONAL	
Received ○	Credited ■	Received ○	Credited ■	Charged ○	By Overhead Ex. ■	Paid ○	Entered ■	Charged ○	Credited ■	Expenses and Withdrawals ○	Investment Profits Ex. ■
47.00		33.00						4000.00			
						75.00					
						60.00					
										4900.00	
8.00		2.00						50.00			
						100.00					5.00
1.00		10.00					11.00				
56.00		45.00				100.00	146.00	4450.00			4945.00

NOS. 1 TO 8 INCLUSIVE.

opened. No. 4—Entry for crediting patient with payment on account. No. 5—Entry for allowances to patients to balance a contract; allowance to permit closing out an uncollectible account; allowance to charity patient. No. 6—Entry showing a Cash purchase of teeth, rubber and furniture. No. 7—Entry for establishing a deposit account. No. 8—The entry for a purchase of precious metals and other supplies on account. Totals of columns forward to columns with same headings on pages 288 and 289.

THE BUSINESS RECORD

Date	DESCRIPTION	PATIENTS' ACCOUNTS		PROF. SERVICE		CASH		OVERHEAD EXPENSE	
		Charged 0	Credited 0	To Pers. Acct. 0	Cash 0	Received 0	Paid 0	Charged 0	By Pers. Acct. 0
	<i>Forward</i>	624.50	55.50		5.00	300.50	155.00	30.50	
No 9	<i>L. D. Gault, D.D. Bills for January</i>								
No 10	<i>The L. D. Gault Co. Paid January bills</i>						20.00		
No 11	<i>A. Laboratory Co. Dental supplies etc. Mrs. D.D.</i>								
No 12	<i>Partial plate Mrs. D.D. From A. Laboratory Co.</i>						5.00		
No 13	<i>Rent Electricity and gas</i>						25.00 2.50	25.00 2.50	
No 14	<i>John Jones Coal</i>							30.00	
No 15	<i>Re-upholstering chair</i>						3.00	3.00	
No 16	<i>The Dental Supply Co. Repairing hand piece</i>							2.00	
No 17	<i>Dr. Dentist. Refracting</i>						17.00	17.00	
No 18	<i>Dr. Dentist Remuneration</i>						50.00		
No 19	<i>Sold gold plates scrap</i>					20			
	<i>Forward</i>	684.50	55.50		5.00	320.50	277.50	110.00	

SPECIMEN ENTRIES

Read entries from left to right across two pages. No. 9—Entry crediting a dealer with the amount of the bills received from him during the month. No. 10 Entry for payment to dealer for the month's bills. No. 11—Entry for the purchase of laboratory service on account. No. 12—Entry for the purchase of laboratory service for cash. No. 13—Entry for cash payments for overhead expense. No. 14 Entry for the purchase of materials for overhead expense account, on credit. No. 15—Entry for cash payment of a repair of

NOS. 9 TO 1 INCLUSIVE.

equipment. No. 16—Entry for a purchase of repairs, on credit. No. 17—Entry for withdrawal from the practice of one-twelfth of the annual amount necessary to refund the investment. No. 18—Entry for withdrawal of the dentist's weekly remuneration. No. 19—Entry for a sale, for cash, of precious metal scraps.

Totals of columns carried forward to columns with same headings on pages 290 and 291.

THE BUSINESS RECORD

Date	DESCRIPTION	PATIENTS' ACCOUNTS		PROF. SERVICE		CASH		OVERHEAD EXPENSE	
		Charged ○	Credited ■	To Pers. Acct. ○	Credited ■	Received ○	Paid ■	Charged ○	By Pers. Acct. ■
	<i>Forward</i>	684.50	55.50		5.00	320.50	277.50	110.00	
No. 20	<i>The Dealer Co.</i>								
	<i>Returned old cabinet</i>								
No. 21	<i>Loss on above cabinet</i>							40.00	
	<i>Patients during month</i>								
	<i>not itemized in this</i>								
	<i>specimen entries</i>	420.00	300.00		420.00	300.00			
No. 22	<i>To balance Prof. Service</i>			425.00					
No. 23	<i>Inventory (see below *)</i>								
	<i>To balance Prec. Metals & Teeth</i>							36.00	
No. 24	<i>" " Other Supplies</i>							47.00	
No. 25	<i>" " Laboratory Bills</i>							12.00	
No. 26	<i>" " Overhead Expense</i>								245.00
		1104.50	355.50	425.00	425.00	620.50	277.50	245.00	245.00
	<i>Balances Forward</i>	749				343			
	<i>Inventory forward (see above)</i>								

SPECIMEN ENTRIES

Read entries from left to right across two pages. No. 20—Entry for the return of furniture to a dealer for credit. No. 21—Entry to credit the Property account with the loss on the cabinet referred to in entry No. 20. No. 22—Entry to balance the Professional Service account. No. 23—Inventory to credit Precious Metals and Teeth account, and Other Supplies account, and to balance

PREC. MET and TEETH		OTHER SUPPLIES		LABORATORY BILLS		LIABILITIES		PROPERTY		PERSONAL	
Received ○	Credited ■	Received ○	Credited ■	Charged ○	By Overhead Ex. ■	Paid ○	Entered ■	Charged ○	Credited ■	Expens. and Withdrawals ○	Drawings From Bal. ■
66 00	20	55 00		12 00		120 00	205 00	4450 00		150 00	4905 00
						2000			20 00		
									40 00		
											425 00
	10 00		8 00								
	36 00		47 00								
				12 00							
66 00	66 00	55 00	55 00	12 00	12 00	140 00	205 00	4450 00	60 00	245 00	5330 00
							65	3900			58 35
10		8									

NOS. 20 TO 26 INCLUSIVE.

Precious Metals and Teeth account. No. 24—Entry to balance Other Supplies account. No. 25 Entry to balance Laboratory Bills account. No. 26—Entry to balance Overhead Expense account.

Balances forward. Inventory forward. See page 283 for directions for determining net profit.

CHAPTER TWENTY

SELLING SERVICE

A sale is an exchange of one commodity for another, or a contract for such an exchange. The sale of dental service for money is the object of the dentist's long educational preparation, of the expenditure for establishing the office, and of his practice of his profession. As dental service may be sold in such ways as to greatly benefit both dentist and patient, or to benefit the patient at the dentist's expense, or to benefit the dentist at the expense of the patient and, usually, in the last named cases, partly at the expense of the reputation of dentistry as a science and all dentists as reputable public servants, it may be beneficial to recognize and set down the elements of that service selling which is finally most profitable to dentists and patients.

HOW DOES A SALE COME ABOUT?

A sale is the result of a conviction by each of two persons that what the other has for him is more desirable than what he already has. In the case of a dental patient, it is the conviction that certain dental service will be more beneficial than the money he is to pay for it. In the case of the dentist, it is a conviction that a

certain amount of the patient's money is sufficiently desirable to justify the expenditure of his time, labor, skill and money.

Such a conviction may develop in the patient's mind as the result of discomfort or pain, or of loss of the functions of mastication, digestion, speech, etc., or of an altered appearance. On the other hand, the conviction may be developed in the patient's mind as the result of information imparted by the dentist as to existing conditions and needs, or of oncoming conditions and the means of forestalling undesirable consequences.

It is probably correct to say that in a great majority of instances the conviction that something should be done is developed in the patient's mind by discomfort, pain or loss; but that it is left to the dentist to give the conviction definite form, and turn it into that action by the patient which makes possible the sale of the dentist's services on terms fair to both parties.

Sales of those forms of dental service which are most beneficial to patients, on terms which are beneficial to dentists, rarely come about of their own accord. They are usually the result of well defined activities on the part of the dentist. There is nothing mysterious about these activities, and while some dentists will be much better salesmen than others, the more important elements of service selling are so arranged in the following paragraphs that any dentist can master them.

THE FACTORS NECESSARY TO A SALE

A patient who can pay for the service it is proposed to sell. An understanding by the dentist of the patient's present or future need, of the means to be employed in serving that need and the expense of such service; an office suited in appearance and equipment to the financial condition of the class of patients to be served; an appearance and manner on the part of the dentist which is agreeable to such patients; an intelligent, instructive and convincing method of showing the patient what service is needed and the cost thereof; and a confidence on the part of the dentist in the benefits from the service and the justice of the fee which will turn the patient's conviction into the action of ordering the service at the proper fee. Each of these factors is worthy of individual attention.

THE PATIENT WHO CAN PAY

It is evident that one of the essentials in effecting a sale is that there shall be some one to whom to sell. In selling dental service there is far more to it than that; it is essential to have some one who can pay for the quality of service to be sold, or to reduce the quality of service until the fee is within the means of the prospective patient.

Many forms of dental service are capable of numerous modifications, or one form of service may be substituted for another, and the necessary fees for the dif-

ferent forms may vary greatly. Thus a molar with a cavity but no pulpitis or exposure may be filled with amalgam or cement or gold foil or a gold inlay, or it may be covered with any of several kinds of crowns. The fees for some of these operations may be too high for a given patient, while the fee for others may be well within his means.

It is evident that first quality dental service such as the inlays in Operation No. 35, Chapter Seventeen, cannot be sold to the man who earns only \$3.00 per day and has four in his family. Nor can he afford orthodontia, fine root canal treatments, extensive bridge-work, etc. The service to be sold to people in such financial condition should be such as can be performed well at fees they can pay, such as well made amalgam fillings in posterior teeth, the new cement fillings or porcelain crowns in anterior teeth, vulcanite plates, etc.

As Dr. Holroyd points out there has been much misconception as to the amounts many people can afford to pay for dental service. If they have money to spend for incidentals, they can afford to spend the amount required for at least medium grade dental service. The man who can afford \$2.00 for two theatre tickets for an evening can afford \$2.00 or \$3.00 for an amalgam filling, even if he has to go without a few evenings at shows. That he does not realize it is much more our fault than his.

The woman who can afford \$8.00 or \$10.00 for a hat

can afford an equal sum for an inlay. She will see it when we are as awake to our possibilities as the milliners have been. The woman who can pay from \$60.00 to \$75.00 for a set of furs in the transient styles of the present, can afford an equal sum for vulcanite dentures, and when her dental education equals her education about dress, she may not hesitate to choose the dentures, even at the cost of going without furs.

On the other hand, people who are well to do desire that service which will be most satisfactory in the end, almost without regard to first cost. The writer knows a number of people who pay high prices for very fine service and who express much greater satisfaction than they had from medium service at lower fees.

In extensive cases, where many operations are involved in restoring functioning power to a mouth, and where a choice among different operations is possible, it is well to carefully make out a consultation chart, and in the case of patients of unknown financial means postpone the announcement of either plans or cost until the patient's financial standing can be learned.

Do not waste time trying to sell very fine service to poor people or cheap service to well-to-do people.

THE APPEARANCE OF THE OFFICE

Without doubt, the appearance of the office has a great effect upon the dentist's success in service selling. A reception room can be furnished to favorably impress

the class of patients a dentist desires to serve; it practically announces to newcomers the class of service to be expected and whether fees are high or low.

If one finds his own way to a reception room with a gaudy carpet entirely covering the floor, with shiny furniture in cheap oak or ash, or with furniture stained to represent mahogany; if the pictures on the walls are cheap chromos in cheap frames, or family photographs; if the centre table is loaded with old magazines and books in riotous disorder, the mind is prepared for the dentist and his fifty-cent "cleanings," or three kinds of silver fillings, at "fifty cents, seventy-five cents, and one dollar."

If, as the other extreme, one enters a good residence or office building and is ushered by a neat maid into a reception room with hardwood floors, Oriental rugs, fine furniture and good pictures, with other evidences of painstaking care and good taste, one is unconsciously prepared to hear the dentist say "It will cost \$25.00 to treat that tooth and place the inlay," and much of the shock of the price has been taken away by the surroundings.

That dentist shows greatest wisdom in furnishings who can furnish his reception room just at the top of the taste of the class from which most of his patronage is derived, so that it appeals to their unconscious aspirations upward, but never oppresses or terrifies or repels them. For the lower middle class or people from

the farms, Oriental rugs and really fine paintings are contra-indicated. These people do not understand them. They feel that unless the dentist got his money much easier than they get theirs, he would not buy them. Such furnishings would make moderate fees seem high to such people. A good domestic rug, medium grade pictures, etc., are indicated.

For the dentist whose practice is among very well-to-do people, good rugs, pictures, books, etc., are essential. They will please actual and possible patients.

Even the most modestly furnished reception room may be kept neat, and cleanliness covers a multitude of shortcomings in quality. Five or ten dollars a year will provide magazines of different sorts for the reception room table; and only one or two issues of each magazine should be in sight. They should be frequently put in order. There should be a few books for boys and girls of different ages, not particularly instructive, but highly entertaining.

THE APPEARANCE OF THE OPERATING ROOM

The Operating Room is often hideously overequipped. Some operating rooms look like a section from a scientific laboratory or an inquisition room. It may make us feel very proud to look about on all the apparatus we have collected and feel that we know what every tube and lamp and appliance means and that we can use them all, but the patient's viewpoint is often very different.

Each tube and cord and appliance is a mysterious engine to be used on him, and most of them cause pain. It is time for the dentist who has forgotten this to sit in another dentist's chair and contrast his feelings as the dentist takes up one appliance after another to use on him, with his pleasurable glow of ownership as he, in the safe position of operator in his own office, takes them up to use on another person.

An operating room should be furnished to permit the greatest efficiency in work. As far as practicable all apparatus should be hidden from view.

THE DENTIST'S PERSONAL APPEARANCE

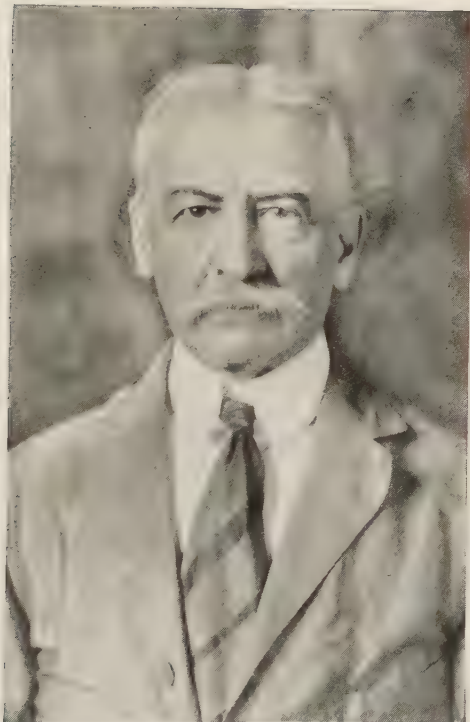
Any unavoidable physical characteristics may be at once dismissed from consideration. Large men and small men, thin men and fat men, handsome men and homely men, straight standing men and crippled men are numbered among successful men in every form of work, including dentistry.

A great mind or soul may overtop the homeliest body, but there are few minds great enough to overtop neglect of one's toilet. Instances are not lacking in which dentists who are careless or slovenly as to toilet are overcrowded with patients, sometimes of a desirable class. But the day is past when a dentist can afford to neglect the details of his personal appearance, if he wishes that class of patronage which is most profitable, financially. Personal carelessness may render futile all

the other efforts the dentist may make. A fine reception room, a completely equipped operating room, trained assistants, and superlative skill are immediately set at naught by a personal appearance which is suggestive of carelessness and uncleanness. If patients could be sure that the uncleanness was confined to the garments, it might not be serious, but the visible uncleanness is a token of habitual carelessness, and it suggests unclean instruments, infection, and the things too horrible to be calmly considered.

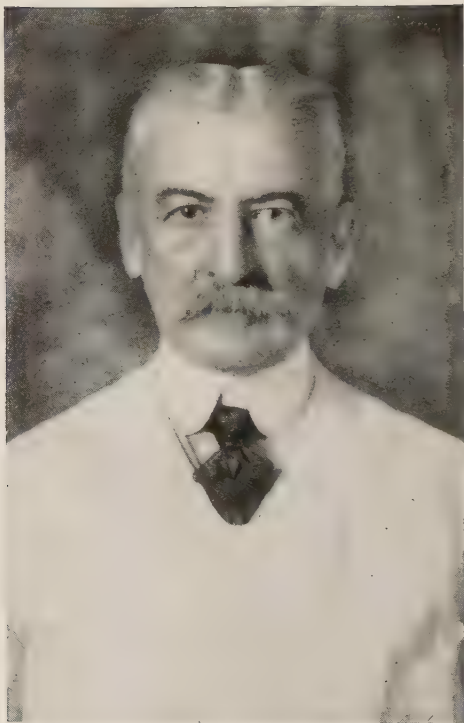
In view of these facts, the carelessness of many dentists in regard to personal toilet is amazing. Untrimmed hair, unshaven faces, frayed or soiled collars and cuffs, worn neckties and stained coats are far too common. Many a dentist garbed in this fashion has given estimates on service to persons whom he has longed for years to serve. Months after, he occasionally hears that the patient went to Dr. X, perhaps in another town, for service. He wonders why, and thinks perhaps his estimate was too high. He seems never to think of his appearance, which may have been the deciding factor against him.

A certain Dr. M is of unusual professional skill and of pleasing personality, but he is very careless of his personal appearance, and this greatly retarded the development of his practice. He was once highly recommended by a noted physician to a family whose patronage was greatly to be desired. The lady visited Dr.



THE UNKEMPT DENTIST

Does not inspire confidence that he can be entrusted with one's dental work, because he does not appear to have succeeded in his own undertakings. He is unshaven, his hair and moustache are untrimmed, his collar frayed, his necktie worn; his coat and cuffs are soiled. He is a picture of a failure in all the things he should have done for himself. People who have failed for themselves do not inspire confidence that they will succeed for others.



THE SUCCESSFUL DENTIST

This dentist appears to have succeeded in his own undertakings and that inspires confidence that he will succeed in what he undertakes for others. His hair and moustache are trimmed, he is cleanly shaved and spotlessly dressed.

Such an appearance begets confidence in prospective patients and is an important step in practice building.

M's office, and that evening reported at home: "I could see at once that he knew what I needed and from what I am told, he could probably do it well, but I couldn't bear to have anybody work about me who is so careless about his toilet. I'm afraid his instruments might not be clean."

It may profit any dentist who is not securing the patronage he wishes, to examine himself mercilessly in respect to his appearance. Let him be his own severest critic. Correction of carelessness in this detail has been known to revolutionize both the character and the gross receipts of a practice in a surprisingly short time. Married dentists who are absentminded in this particular should heed their wives' admonitions.

The wearing of white suits by the dentist is becoming more general and is certainly an improvement, if the suits are kept clean; if they are not kept clean, they proclaim their uncleanness more than darker colored clothes. Enough suits should be bought to assure spotlessness and to permit changing whenever necessary. If the assistant wears white, the same will be true of her uniform. A liberal appropriation for spotless linen will be a wise use of money in practice building and holding.

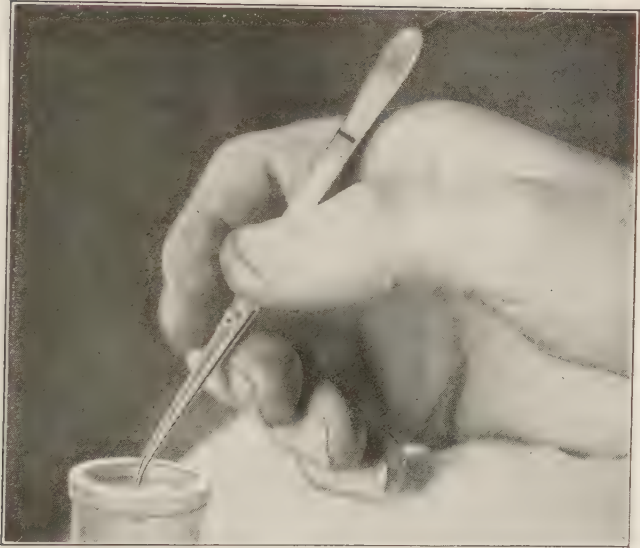
THE APPEARANCE OF THE DENTIST'S HANDS

Even more important than the appearance of the general toilet is the appearance of the dentist's hands.

A certain dentist who complained of little patronage was led to a mirror and caused to hold up his hands. "There," said his friend, pointing to the reflections, "how would you like to have hands like those about your face and in your mouth?" The owner of the hands suddenly awoke. He saw his hands as they really were and not as he imagined they were. He saw grime and stains from laboratory work without gloves, broken nails only half cleaned, and here and there a tobacco stain. He entered at once upon the proper care of his hands, and afterward made no complaint of dull business.

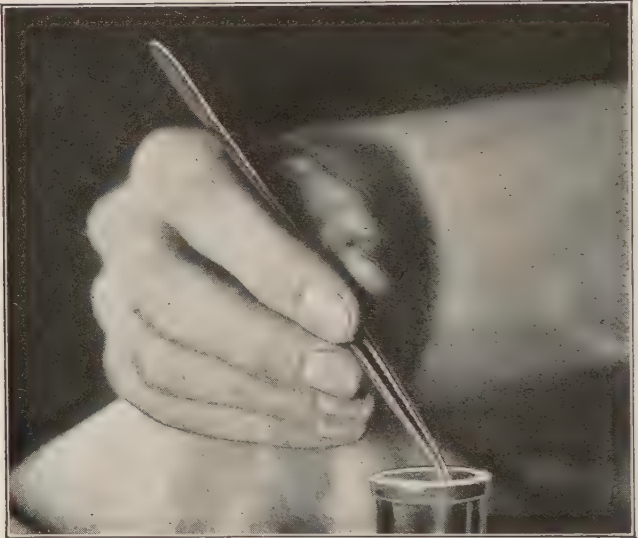
A little forethought will protect even hands that soil readily. Gloves that keep out dirt may be obtained and worn during rough laboratory work. If vaseline is thoroughly rubbed into the skin before beginning any work that might stain the hands, the stains are less likely to "take" and the hands can be washed clean. A gold file makes a good nail file. A sharpened orangewood stick with a little powdered pumice and soap and peroxide of hydrogen will clean under the nails and about the roots. A buffer and some nail polish, with a pair of cuticle scissors will complete the outfit. During cold weather, skins that roughen easily should have some good skin preparation rubbed in often.

The wide-awake dentist will not approach a patient until his hands are in that condition in which he would willingly have another's hands put into his own mouth.



SUCH HANDS REPEL PATIENTS

The stains may have been acquired in a perfectly proper manner and may be harmless in nature, but they make the hands repulsive. Well-paying patients are repelled by the thought of having such hands in their mouths.



CLEAN HANDS PLEASE PATIENTS

The same hands as are shown on the opposite page are here cleaned and manicured. They do not offend patients who are particular about personal cleanliness.

Moreover, he will be sure to have a lavatory so located that patients will know that he washes his hands at least between patients.

THE DENTIST'S MANNER

A few years ago certain dentists seemed to enjoy the reputation of being "rough but good," and their manners were as rough as their technic. But the younger men, without reputations, found the "rough but good" attitude unprofitable and adopted the pleasant, courteous manners common to gentlemen.

It does not increase one's dignity to hold aloof from others or assume a superior air; nor does it lower the dignity to assume the friendly attitude of an intelligent worker who has specialized in one line. No one knows enough to justify pride. One of the leading diagnosticians of this country frequently says to patients, "We know so very little of what we need to know, that it does not pay us to be too certain." Furthermore, while the dentist undoubtedly knows more about teeth than the patient, many patients are more distinguished in their lines than the dentist is in his.

Some dentists who have not had the advantages of good social training in youth, are uncertain how a proper manner can be developed. One with a great mind once said that the outcropping of love in the heart makes a true gentleman, by which he meant that kindly consideration finds expression in all gentlemanly ways.

For the rest, watching well trained people will suggest numberless little acts of courtesy.

Nothing could be farther from the desired manner for a dentist than flippancy or familiarity.

DEVELOPING THE PATIENT'S CONVICTIONS

A clever salesman does not say much in detail about the article he has for sale until he has aroused a strong desire which it is designed to fill. If he is selling a book, he merely mentions it and then speaks of its educational and entertainment value. When the prospective customer manifests interest in either of these phases, he shows how the book entertains or instructs and why it is especially well fitted to these ends. In other words, he shows the special application of the book to the customer's desires.

If he is selling a mechanical device for reproducing music, he dwells upon the influence and value of music, how it shapes the tastes of the young and entertains adults. Then he explains that his device brings to the home the music of great singers and players, good dance music, etc., until he has a picture in the hearer's mind of the family listening to delightful music or dancing the happy hours away.

The salesman follows with close attention the movements of his hearer's mind. He explains the machine in detail only enough to turn the aroused desire into conviction and the action of ordering. He must not talk

too much. There is a time to talk and a time to close the order. Too much talking will talk the customer out of the notion, or suggest that he delay ordering. And many delayed orders are lost.

The dentist as a salesman has the most important, intimate and persuasive of subjects, the welfare of the hearer's body which is the foundation of his achievements and happiness. The dentist is not properly a salesman of teeth, fillings, treatments, etc.; he is a salesman of service which has for its object, comfort, appearance, health, and efficiency.

He should not talk fillings, crowns, etc., in the beginning, but should devote himself to the patient's general physical welfare and the dangers that uncleanness of the mouth and inability to masticate threaten. In men, the appeal is best made to efficiency first and appearance second; in women, to appearance first and efficiency second.

When interest is shown, the dentist should at once pass to the causes of the threats to the health of that particular patient, malpositions of teeth, deposits, inflammations, decayed teeth, pus-wells in the forms of pockets or abscesses, cavities, missing teeth, etc. These should be shown as diagrammed on a consultation chart. As soon as they are understood, the dentist should make plain the benefits of oral cleanliness, restored function, etc. He should follow his patient's state of mind from the remarks and facial expression and then outline

briefly the proposed restorations. It should be remembered that the strongest convictions are established by suggestion rather than by dogmatic assertion. The wise salesman leads a customer to the threshold of a discovery and lets the customer make it for himself. He then persuades the customer to act while in this happy frame of mind as a discoverer or concluder. The action which the customer thinks he took of his own initiative is likely to remain more satisfactory than the action into which he thinks that he was forced.

It goes without saying that no dentist should demean himself or his profession by false or exaggerated statements. The need is often such that there is no excuse for exaggeration.

The patient will usually ask the fee. Its acceptance will depend largely upon the clearness of his mental pictures of need and of benefits.

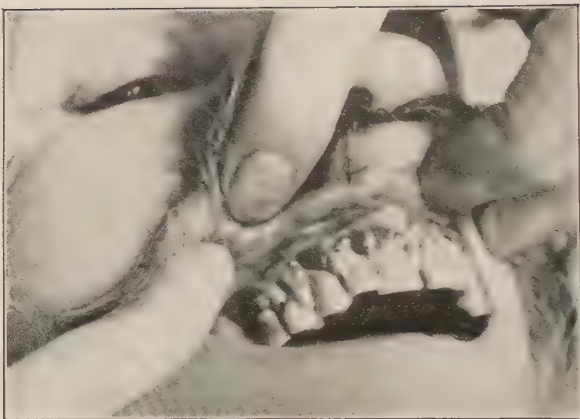
THE UNDERSTANDING BY THE PATIENT

When all the other conditions are favorable to a sale of dental service at a satisfactory fee, the entire transaction will turn upon the patient's conviction that the benefits from the service justify the expenditure. That conviction will doubtless be founded partly upon an understanding of the character of the work but much more upon a conviction that the dentist understands the case and that he is capable of rendering satisfactory service. The dentist's service selling efforts should centre upon

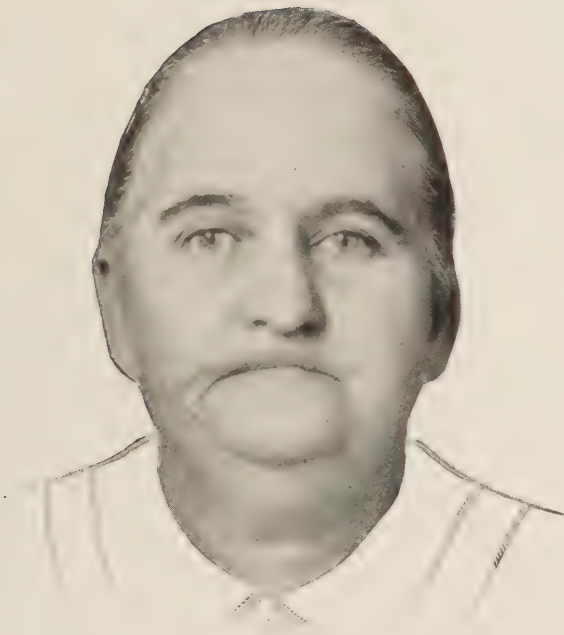
the task of establishing the convictions of the desirability of the service and his own ability and suitability in such force that they will carry themselves over into the action of ordering the service. For conviction, incompletely established, does not result in action or orders.

The dentist can best establish the conviction as to the desirability or necessity of the need of service by creating in the patient's mind a picture of present conditions and their effect upon appearance or health; and then of conditions as corrected by the service under consideration. To this end, pictures, diagrams, natural teeth and models will be found useful, and should be liberally employed. It is to be kept steadily in mind that the words the dentist uses do not mean to the patient what they mean to him, but that if he can illustrate each step of need of reconstruction, the patient's perceptions will be much clearer and the conviction will be more easily established and much firmer than if illustrations are omitted. Fortunately, many manufacturers now offer illustrations of the service possible with their products, which dentists can use to great advantage in making such explanations.

Plain, every day language should be used in making explanations. Dentists who habitually use technical terms and feel that no others will suffice, should be reminded of that great editor who received from a reporter a story which bristled with big and technical

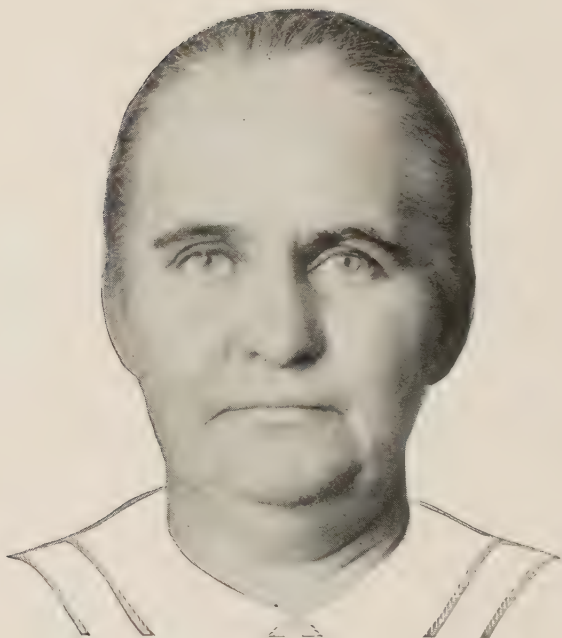


By means of illustrations similar to this, dentists can explain to patients the location, evidences and nature of inflammation of the gums. Other pictures may be used to illustrate the progress of the trouble, with pus flow, loss of the teeth, the taking of pus and germs into the digestive tract, and serious bodily harm as possible results. Such illustrations, with proper explanations, make plain to patients the seriousness of the trouble and the desirability of patient, skillful service as no mere statement by the dentist could.



THE EDENTULOUS FACE

Illustrations like this help a patient to understand the dentist's explanation of the changes in facial form which follow loss of the natural teeth, the falling in and wrinkling of the lips, the downward pull on the nose and the look of premature old age. The patient who understands the effect of these changes will appreciate the dentist's efforts to restore the expression by means of artificial teeth.



THE FACIAL EXPRESSION RESTORED

This illustration shows the same face as on page 313 after the expression has been restored by properly made dentures. It helps a patient to estimate, at somewhere near its proper value, the artistic skill the dentist employs to restore the face to form, and the lips and cheeks to position. Such an understanding is the forerunner of desire for really professional service.



If patients needing dentures are shown the unpleasant results of hasty selection and arrangement of conventional forms of artificial teeth, as illustrated here, they will reject such a quality of service even at a low fee. Dentists confronted with low fee competition should make liberal use of illustrations to show the results of low-fee service.



A short explanation by the dentist will make plain to any intelligent patient the points of superiority in appearance of these dentures over those on the opposite page. The superiority in masticating efficiency can be made plain by other illustrations or by models. Thousands of people want this quality of service and need only to have its nature made plain, to welcome it at fees which will be entirely satisfactory to the dentist.



HELPING PATIENTS TO UNDERSTAND

If the dentist has at hand an articulated model, he can make plain the difference between occlusion and articulation in fillings, inlays, crowns and bridges and can show patients why it is important and economical to them to receive the most intelligent and painstaking service.

words. He returned it to the reporter with instructions to write it in simple style, and to the reporter's objection that so great an account could not be written for the man in the street, he pencilled this note: "The story of the creation of the world is told in simple language: I should think this story might be."

OFFICE STATIONERY

The quality of stationery used in the office will be determined largely by the class of people the office serves. If it serves a well-to-do class, the paper employed for letterheads, envelopes, billheads, appointment cards, etc., should be white, heavy, and of fine quality. The name and address should be well engraved. The dentist's personal cards and the appointment cards should be engraved.

M. _____	
HAS AN APPOINTMENT WITH	
DR. JOHN S. ENGS	
_____ 191 _____	AT _____ O'CLOCK
IF UNABLE TO KEEP THIS APPOINTMENT TIMELY NOTICE (24 HOURS) SHOULD BE GIVEN, THAT THE HOUR MAY BE FREE FOR OTHER PATIENTS; OTHER- WISE YOUR RESERVATION OF TIME WILL BE CHARGED TO YOUR ACCOUNT.	

If the class of people served by the office is not so well to do, it is unnecessary to have the name and

address engraved, but they should be well printed. The paper need not be as heavy as that described.

If the people served by the office are poor, the paper may be light in weight, but should have the name and address well printed.

The substance of the above suggestions is that the paper and the form of imprint should be such as the people who will receive the communications from the office are accustomed to receive. The receipt of a printed letterhead by a person who is accustomed to the luxurious things in life, often makes an unfavorable impression. The receipt of an engraved letterhead by a person who works hard for moderate remuneration, may predispose the person against the dentist and make even moderate charges seem unduly high.

FOLLOW-UP SERVICE FOR PATIENTS

Many patients who have received the benefit of dental service leave the office with the intention of returning within a few months for service. Very often the rush of other affairs drives it from their minds and the intended visit is delayed.

Some such patients will be glad to have the dentist call the matter to their attention. Many dentists have formed the habit of saying to patients, at the close of service, "Would you like to have me bring this matter to your attention in six months?" and then making a notation to do this for patients who desire. Such a

notation can easily be made by taking a 5 x 3 inch card index box, having in it a series of month and day cards for the year. When a patient desires to be notified after three or six months, the name is written on a card and inserted back of the day on which the notices should be sent. If each day's cards are looked over, the system works efficiently. In this way quite a calling list can be made, and if care to that end is used, the months in the year which are duller can often be enlivened.

Dr. Charles Nathan has devised a system of tabs, each bearing the number of a month (January 1, February 2, March 3, etc.). He places a tab bearing the number of the month when the patient should be notified, on the patient's ledger card, where it is easily seen and insures attention. These tabs, in position, are illustrated below.

Name					Address				
Mrs. Smith					174 Putnam Ave. Bklyn				
Date	Operation	Time	Dr.	Cr.	Date	Operation	Time	Dr.	Cr.
Feb 15	Analgesic	15	2	3					
J					7				
Mr. Jones					413 - 3rd St. Bklyn				
Date	Operation	Time	Dr.	Cr.	Date	Operation	Time	Dr.	Cr.
Jan 12	Gold Salicyl	12	10	10					
Inactive Accts.									

Dr. Nathan's Follow-up System

The benefits to the patients justify the method, since the service is usually only prophylactic, when frequently rendered, and is much more economical to the patient than more extended service rendered at long intervals.

Dentists who adopt a follow-up system, are advised to have the notice to each patient individually written or typed. This gives the service a more personal and effective form than does the use of a printed card.

CHAPTER TWENTY-ONE

ASSISTANTS

“ORGANIZE, DEPUTIZE, SUPERVISE, REALIZE”

Assistants to a dentist may be of several sorts and have quite unlike duties. First comes what may be called The Non-operating Assistant, sometimes spoken of as a Secretary. Such an assistant is usually a lady and her duties vary with the organizing ability of the dentist and her own abilities. Under certain conditions such assistants are nearly invaluable. Under other conditions, they have but slight value.

There is the Laboratory Assistant whose duties, as the term indicates, are largely in the laboratory, though they may be stretched to include other profitable activities. Intelligent non-operating assistants are often trained to do laboratory work.

There may be the Graduate Assistant, who conducts a chair in a manner partly or wholly similar to the dentist.

WHEN ARE ASSISTANTS JUSTIFIED?

No one rule can be established to determine when a dentist shall employ one or more of the above assistants.

It depends upon conditions which differ in different practices.

It may be settled, first of all, that the employment of any of the above assistants is not justified in practices where the net financial return is not sufficient to afford the dentist a good living and something annually toward a competency. Speaking broadly, it might be said that no assistant is justified, or at most only a very low priced one, in any practice having gross annual receipts of less than \$2,500, though there are always exceptional cases.

Assistants are not justified in practices where the dentist's time is not fully occupied.

It may be doubted whether assistants are justified in any practice of less than \$3,000 if the practice has reached its limit of growth, and the net income cannot be increased.

If a dentist were to follow the best business procedure he would not hire even a non-operating assistant as long as any arrangement of equipment or improvement in methods would enable him to care well for the practice without undue fatigue. An assistant becomes profitable only when her help will enable the dentist to earn more than enough, additional, to defray her cost.

The employment of a non-operating assistant seems to be justified when the demands on the dentist's time are greater than he can meet. It seems logical to hire some one to help bear the burdens by relieving the den-

tist of non-professional duties. Yet the problem of securing satisfactory assistance is by no means easily solved. Intelligent hiring and employment demands something more than payment of wages by the dentist, and something more of the assistant than mere industry. They demand that the dentist shall arrange work well and give intelligent and judicious orders, and that the employee shall be intelligent and interested.

There can be no doubt that a female assistant improves the tone of an office, that she is welcomed by most lady patients, and that her presence protects the dentist against possible charges by unscrupulous female patients.

THE DENTIST'S ORGANIZING ABILITY

Given then, conditions which justify employing a non-operating assistant, the success of the undertaking will depend in great part upon the dentist's organizing ability.

Organizing ability in this case, is the power to divide the office activities into professional and non-professional classes, to arrange the non-professional activities in such way that the assistant can perform them, and to explain them so that she can master them.

The dentist's ability to govern more than the labor of his own hands now begins to manifest itself. This ability is very important to the development of profits. Patience and courtesy are not incompatible with plain

common-sense dealing, with detailed instruction, and with supervision.

Many dentists have excellent success with assistants because they lay out the duties so plainly that an assistant can understand them and patiently instruct the assistant how to master and perform them. Other dentists have poor success with assistants because they do not properly organize the duties or explain them in such way that the assistant can master them, or because they watch, nag and find fault in the presence of patients.

THE ASSISTANT'S ABILITY AND PAY

Much of course depends upon the ability of the assistant, and, in some cases, this will depend upon the amount the practice can afford, in wages. Where the growth of the practice is limited to less than, say, \$4,000 annual gross receipts, high wages cannot be paid, but fairly intelligent assistants can sometimes be secured for from \$5.00 to \$8.00 per week. Where the growth of the practice is limited only by the dentist's ability, it will prove more economical to hire a person who will develop ability to command more money by assuming an increasingly important and profitable place in the conduct of an office.

It may prove profitable to hire such a person on the basis of a fixed salary and a percentage of the net profits over a fixed sum, provided proper books are kept to show

the net profits. Thus if the practice now pays \$2,500 net, and a very capable person could be hired for \$10.00 per week and 10 per cent. of the net profits over that sum, her attention would be directed to every activity likely to reduce expense and increase profits. Such an assistant might become a profitable practice builder.

Such a financial basis should be satisfactory to the dentist. The assistant would have to earn her own salary before the profits could be increased. If the profits were increased \$1,000 in any year, the assistant would receive \$100 additional to her wages, and the dentist would receive \$900.

A payment based on a share in the profits will usually be found to maintain an assistant's alert attention to many details that would otherwise escape attention.

SELECTING THE ASSISTANT

A most disagreeable feature of young lady assistants is that many of them regard "the job" as merely a stepping stone from school to the altar. It is very disconcerting to train an assistant, only to have her announce, shortly afterward, that she intends leaving. This can sometimes be avoided by selecting a lady old enough to have a serious view of her work, or one financially poor enough to value the opportunity.

Every up-to-date business house considers that each trained employee represents a considerable investment in the time and expense spent in training. Efforts are

made to select only employees worthy of such investment, and who will prove permanent. The dentist should select an assistant carefully. When trained, she will represent a considerable investment and will embody many profitable possibilities.

Girls who have had no responsibilities in the home, but who have been raised to pleasure and social distractions are likely to prove disappointing.

Some girls have quite as much mechanical ability as any young man. Such a girl will prove valuable in selecting tooth or crown colors and forms, in carving and making inlays, in matching cement shades, and in grinding, staining and arranging teeth for artificial dentures.

THE NON-OPERATING ASSISTANT'S DUTIES

will vary with the degree of her training and skill. They might be progressively listed as follows:

Answering the telephone and door; supervising the order in the reception room; meeting visitors and assisting patients in departing; cleaning, sterilizing and replacing instruments; mixing amalgam or cement; assisting at the chair; going errands; making or changing appointments; filling in the examination chart by the dentist's dictation; keeping the books; supervising stocks and ordering supplies; investing and casting; arranging teeth; soldering and polishing; polishing children's teeth in orthodontia cases, etc.

When the practice grows sufficiently so that the as-

sistant is fully occupied, or she progresses enough to permit occupying her time with those tasks which require training, a maid should be employed, and placed under the charge of the assistant, who will then definitely become a secretary. Many dentists err in overworking assistants and themselves, so that both finish the day physically exhausted. Over-work is never economy and must be paid for, sometimes heavily. The maid can answer the door, receive incoming patients and assist ladies who are leaving, sterilize and replace instruments; go on errands to laboratory, depot and bank; supervise the order in the reception room, etc. She should be dressed as a maid and the secretary in white. If she is carefully selected, as a possible secretary, she may prove invaluable in case of the illness or resignation of the secretary. Secretaries have been known to be much more ambitious and attentive when they were aware that an understudy was always at hand.

Dr. P. Neff Meyers submits the following list of his assistant's activities and the amount of time spared to his work by her performance of them.

"The following items are some of the duties my assistant has to do, thereby saving me thirty-one hours and sixteen minutes per week, or more than half my time. Sterilizing, getting warm water, mixing alloy, mixing cement, investing and casting inlays, answering phone, attending reception and dressing room, writing receipts and letters, making deposits in the bank, ar-

ranging instruments on laboratory bench for different classes of work, getting Supplee outfit ready, also plaster for impressions, wax for bite, pouring models and separating same, ordering supplies, keeping record and stock of same, bringing patients into operating room, seating them and placing on towels, getting the prophylactic outfit ready, also the Fisher outfit, marking up the chart as I call off the work done at each sitting, making out statements, keeping books and making appointments."

"Below is a report of one week's work; 536 tasks, divided as follows:"

	OPERATIONS	TIME
Patients handled	60	5 hours
Warm water	72	54 minutes
Mixing alloy	12	72 "
Mixing cement	20	30 "
Investing and casting	13	13 hours
Phone	29	29 minutes
Reception room	100	100 "
Patients' wraps	45	90 "
Receipts	16	32 "
Bank deposits	6	60 "
Laboratory, for crowns	3	36 "
Cup of water	60	30 "
Wax for inlay	13	13 "
Hypo, Novocain	3	15 "
Prophylactic outfit	6	18 "
Marking charts	60	120 "
Saliva ejector	5	8 "
Mixing synthetic	7	14 "
Polish crowns and bridges	3	80 "
Ordering supplies	3	6 "
Total.....	536	31 hrs. 27 minutes

MOTION STUDIES TO SAVE TIME

If the dentist is habitually busy, the most careful and painstaking study of the dentist's movements and the assistant's movements, with a view of eliminating unnecessary movements by both, will prove very profitable. Thus, if the dentist will group all instruments used for preparing cavities into one tray, he may call for "the cavity preparation tray," and a single movement will place before him all the instruments he is likely to need. If at the same time, an empty tray is placed on the bracket table, the dentist can drop the soiled instruments into it, as they are used. At the close of this part of the operation, two movements will replace the unused instruments and start the used ones toward the sterilizer. Practically all the other activities can be organized in similar ways.

THE LABORATORY ASSISTANT

Some laboratory assistants are women, and when suited and trained to this work, their skill is highly praised by good judges. They may be unsuited to some of the heavier forms of work, but they often possess great clearness of perception and deftness of execution.

Some one has said that a dentist's professional knowledge and skill, and his ability as an organizer can be judged by the product of his laboratory. For here, quite as strongly as by his operative work, the product will show what the dentist knows, what he has taught his

laboratory assistant, and to what standard of quality he holds.

The employment of a laboratory assistant does not excuse a dentist from knowing the science and technic of laboratory work. He must understand the principles of articulation in crowns, bridges and dentures, and how to conform prosthetic pieces to those principles. He must know how to carve the occlusal surface of inlays and how to cast and finish. He should know what karats and gauges of golds to use, and how to solder them as many times as the construction of the piece requires.

Perhaps even more than in the labors of the non-operating assistant, do the four great words of all organization apply in connection with laboratory work. They are Organize, Deputize, Supervise, Realize. They mean that the dentist shall first know how to do good laboratory work; then that he shall teach it to his laboratory assistant; shall delegate the actual work to the assistant, when trained; shall supervise its performance; and shall hold the quality of work up to the desired standard.

Dentists who can do good laboratory work and can teach others, and who live where earnest minded young men and women can be hired, will often do better to train their own laboratory assistants than to hire those trained by other dentists.

Careful records of laboratory expenses should be kept

and some record of completed work, to learn what laboratory work costs, and to guard against unsuspectedly high costs.

In this connection, the Individual Laboratory Chart mentioned in Chapter Eighteen will be found useful in establishing the costs of service by the office laboratory.

GRADUATE ASSISTANTS

are those who have had professional training and possess diplomas and licenses to operate. They can be profitably employed only when there is opportunity to render more professional service than the owning or managing dentist can perform.

The employment of graduate assistants is viewed very differently by different dentists who have had experience as employers. Some speak highly of the results, while others express dissatisfaction. It may be that the causes for satisfaction or dissatisfaction lie partly in the employer and partly in the employed. It seems difficult to frame an agreement which will prevent the employee leaving, establishing himself nearby and taking the patronage of some or all whom he served in the office where he was employed.

THE BASIS FOR EMPLOYING

Business records similar to those suggested in the foregoing pages will prove invaluable guides in establishing the basis upon which a graduate assistant can

be employed with profit to the office and himself. When such employment has continued long enough to permit making records, the actual profit to the office, from the employment, can be determined.

In some offices it has been customary to pay the graduate assistant 50 per cent. of the gross receipts from his work and furnish everything the graduate uses. It is doubtful if this arrangement is profitable to the office. If one secretary and one maid can serve both operators, and the two chairs can produce enough prosthetic work to keep a laboratory assistant busy who would not otherwise be busy or could not well be employed, there may be collateral advantages to the employment of the right graduate assistant on the basis of 50 per cent. of the gross receipts. Otherwise, it should be remembered that about the only expenses which the graduate assistant divides are the rent, light, heat and 'phone.

CHAPTER TWENTY-TWO

BUYING FOR PROFITS

The expenditures for the supplies necessary to the conduct of a dental practice may be so greatly reduced by intelligent buying that the amounts saved equal handsome profits on the sums invested. Such buying may take two forms, the establishing of a Deposit Account and securing a discount thereby; and the purchase of supplies in economical quantities.

While both opportunities have long been open to dentists, the perception of the benefits to be derived has never been sufficiently general to induce any large number of dentists to habitually take advantage of them. Three years ago, not more than 2 per cent. of the dentists maintained Deposit Accounts.

DEPOSIT ACCOUNTS

A Deposit Account is established when a dentist deposits \$95.00 in cash, with a dental depot, in advance of purchases, and receives credit for \$100. Some depots extend this credit to cover purchases of precious metals and laboratory work, in addition to furniture and supplies. Very satisfactory profits accrue from the establishment of a deposit account. The reports of prac-

tices in Chapters Nine to Fourteen, inclusive, show that practices average to purchase precious metals and supplies to the following amounts:

A \$2,000 gross practice purchases \$358 worth per year							
"	2,500	"	"	"	338	"	"
"	3,000	"	"	"	412	"	"
"	3,500	"	"	"	510	"	"
"	4,000	"	"	"	504	"	"
"	4,500	"	"	"	738	"	"
"	5,000	"	"	"	688	"	"

Under these conditions, these practices use up a \$100 account (secured by depositing \$95) the following number of times per year:

A \$2,000 gross practice, 3.6 times					
"	2,500	"	"	3.4	"
"	3,000	"	"	4	"
"	3,500	"	"	5	"
"	4,000	"	"	5	"
"	4,500	"	"	7	"
"	5,000	"	"	6.8	"

The result of the use of the \$100 credit this number of times per year is that the practices will make the following net savings on purchases, as compared with the cost of the same materials if purchased on 30 days' credit:

A \$2,000 practice, \$18.00		
"	2,500	17.00
"	3,000	20.00
"	3,500	25.00
"	4,000	25.00
"	4,500	35.00
"	5,000	34.00

These savings are equivalent to the following profits, per annum, on the sum of \$95 actually invested:

In a \$2,000 gross practice, annual profit,* 19 per cent.							
"	2,500	"	"	"	"	18	" "
"	3,000	"	"	"	"	21	" "
"	3,500	"	"	"	"	26	" "
"	4,000	"	"	"	"	26	" "
"	4,500	"	"	"	"	36	" "
"	5,000	"	"	"	"	35	" "

* All fractions omitted.

HOW THE PROFIT IS FIGURED

If one invests \$95 in dental materials 3 times in one year and effects a saving of \$5 each time, or \$15 in all, the profit is equal to 15.8 per cent. interest on the \$95 invested. This is figured as follows:

The dentist who is not accumulating a stock of materials sells as fast as he buys. That is, he buys \$100 of materials 3 times a year and sells materials to the value of \$100 three times a year and is supposed to collect the cost of the materials as part of his fee. Following such collection, he has received back from patients, the sum expended for materials and has that money to re-invest. He is not called upon to find new capital each time, if he collects promptly. He is able to use the same capital again and again, 3 times each year, and to make a profit of practically 5.3 per cent. each time he uses it, or 15.8 per cent. during the year.

It is doubtful whether a dentist with a Class I practice can save enough money to maintain a deposit ac-

count, but all practices of more than \$2,000 annual gross receipts should make it a rule to establish such accounts.

It will pay the Class II dentist who purchases \$358 worth of supplies and precious metals each year to borrow \$95 if necessary to establish a deposit account, and collect promptly so as to keep the account up. If he pays 6 per cent. per year for the use of the money he will still make 13 per cent. net profit.

BUYING IN QUANTITIES

If materials extensively used in practice are purchased in quantities, very important economies can be effected, as compared with the purchase of the same articles in very small quantities. But the opportunities to effect such savings should not induce the dentist to buy large quantities of materials of which he uses little. A few examples of the economies possible in buying quantities, and the percentage of saving as compared with the cost of the same amount of materials bought in the smallest quantity, as needed, follow:

		SAVING	
Synthetic Cement, ½ portion.....	\$ 2.25 }	\$0.50	12½%
Synthetic Cement, full portion.....	4.00 }		
Synthetic Cement, 10 full portions	35.00	5.00	14%
Fellowship Cement, 1 color pkg.....	1.00 }	2.00	20%
Fellowship Cement, 6 color pkg. (dbl. quan.) ..	10.00 }		
1 oz. alloy	1.50)	.50	7%
5 oz. same alloy	7.00)		

SAVING

1 oz. alloy	\$ 2.50	\$2.50	25%
5 oz. same alloy	10.00		
Temporary stopping, per pkg.....	.50	1.20	25%
12 pkgs. temporary stopping	4.80		
Burs, 1 doz. ....	.75	1.50	20%
Burs, 1 gross	7.50		
Broaches, per doz.	1.00	2.00	20%
Broaches, 12 doz. for.....	10.00		
Broaches, per doz. ....	.75	3.00	50%
Broaches, 12 doz. for.....	6.00		
Cotton Rolls, 100 in box, 6" asst'd.....	.60	.50	20%
Cotton Rolls, 500 in box, 6" asst'd.....	2.50		
Petroid Cement, 1 color pkg.....	1.50	3.00	20%
Petroid Cement, 6 color pkg.....	15.00		
Paper disks, box .....	.10	.20	20%
12 boxes	1.00		

CHAPTER TWENTY-THREE

ACCUMULATING A COMPETENCY

It is essential that he who is compelled to support himself by his own labor, shall arrange for such support for as long as he may live, whether or not he is able to earn for all of that period. Such provision requires that he establish, during his greatest earning period, a money reserve which will support him during the period when his earnings will be insufficient or he will be unable to earn. That reserve is here called "A Competency."

WHAT IS A COMPETENCY FOR A DENTIST?

The Standard Dictionary defines a competency as "Sufficient property for comfortable livelihood; a moderate fortune." For a dentist, it is sufficient money saved from the net earnings of his practice, together with what interest such savings may accumulate, to support him in comfort during the period when his earnings are insufficient for his support.

THE AMOUNT NECESSARY FOR A COMPETENCY

It is worth while to try to learn what amount of money is necessary for a competency, during what years and by what methods it is to be accumulated,

how it should be handled and for what years it must support the dentist. The data in the foregoing pages is to be used in connection with other data which will be explained.

No exact amount can be fixed upon as the minimum which constitutes a competency because of the widely differing habits of different dentists and the equally widely varying expense such habits entail. For the dentist in the small town, who owns his own home and who loves his garden and chickens, a smaller sum will be required than for him who knows only the conditions of life in a city; and it probably will not be called upon until later in life.

If one could average all conditions, it might be fair to say that from \$75 to \$100 per month from the age of sixty onward is desirable. This will be more than sufficient for some, but not sufficient for others.

THE PERIOD FOR ACCUMULATING THE COMPETENCY

It is not here assumed that the dentist will suddenly fail, physically, at the age of 55 and be unable to earn thereafter, or that the action of the competency must begin immediately after his 55th birthday. His earnings may have already declined by that age, or they may hold up for several years after that time. It is here assumed that the competency should be accumulated between the ages of 35 and 55 and be available by the age of 60 and continue throughout life.

On the other hand, it must be borne in mind that the dentist has no assurance that his great earning period will extend to the age of 55, or that he will live to enter upon it at all. If the experience of the insurance companies, as expressed in what are called "The American Experience Tables of Mortality," be applied to dentists, his chances of life are about as follows: *

Of 890 dentists who graduate into practice at the age of 25 years, 82 or about 1 in every 11 will not live to enter upon the great earning period which now begins about the age of 35.

By the age of 40, one in every 8 will be dead, and those living may expect to reach an average age of 68.

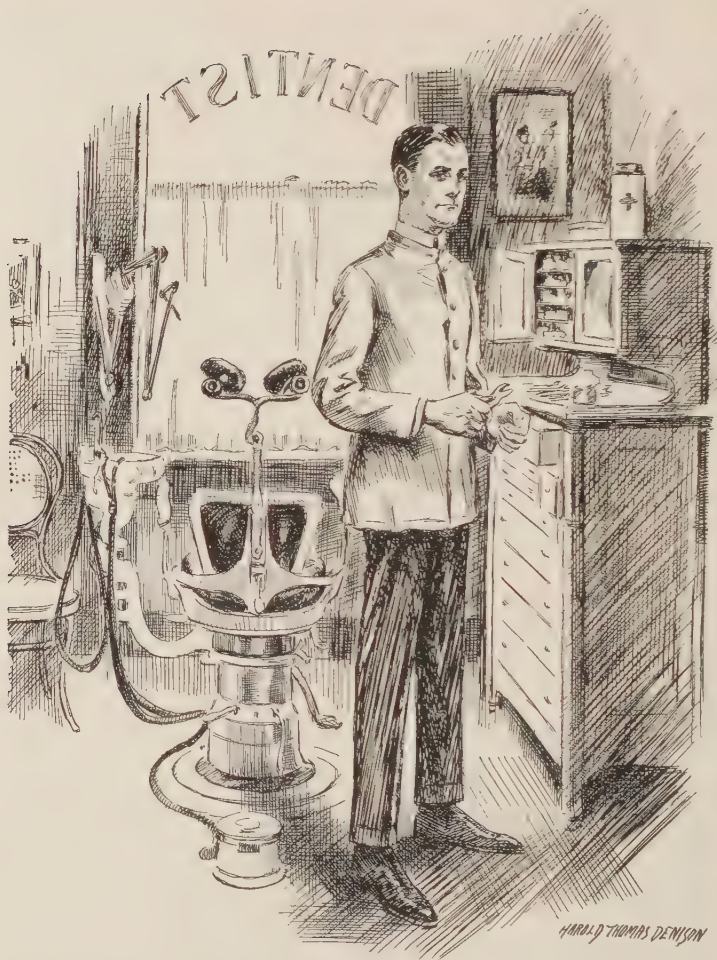
By the age of 50, one in every 5 will have died, and those living may expect to reach an average age of 71 years.

By the end of the great earning period, about 55, 245 dentists or 1 in every 3.6 will have died, and the survivors may expect to reach an average age of 72.4 years.

At the age of 60, 1 in every 2.8 will have died but the survivors may expect to reach an average age of 75.4 years.

Of the 579 survivors at the age of 60 years, 145 may expect to survive to the age of 80 years, and then average 4.4 years more of life.

* His chances of continued earning power are fewer than his chances of life, because many are ill for various periods and recover, or suffer impaired health for many years, or are ill a long time, with a fatal termination.



Of 890 dentists who entered practice at the age of 25 years, 245 will not live to complete the great earning period, but 145 may expect to survive to the age of 80 years. They must either provide for their own support to that age or become dependent upon others.

It seems probable, then, that of the 808 dentists who lived to begin the great earning period, 245 will die before the period is finished, but that 145 will survive to the age of 80 years, and must either arrange to support themselves to that age or must be supported by relatives or public charity. No one can foretell whether he is destined to die before his earning period is over, or whether he will be one of the survivors at the age of 80. It will be much better for him to assume that he is to survive and to make his preparations accordingly.

THE METHOD OF ACCUMULATION

The competency may be assured in either of two ways, both dependent upon savings. One way is to save and invest enough money between the ages of 35 and 55 so that the income, at 5 per cent. interest, will amount to from \$900 to \$1,200 per year after the dentist is 60 years old. This may be referred to as Plan A.

The second and safer plan is for the dentist to purchase that form and amount of insurance which will secure an income for him and his family in old age. This may be referred to as Plan B.

THE NECESSARY RATE OF ACCUMULATION, PLAN A

If the dentist is to accumulate a competency of \$100 per month by Plan A, he must accumulate \$20,000, in addition to the \$4,000 saved by the installments of the Refunding Fund, by the age of 55, in such form that it will yield him 5 per cent. per annum. To do this, he

must save a minimum of about \$500 for each of the twenty years from the age of 35 to 55, invest each year's savings in stable securities, and re-invest the interest as it is received, and not begin to draw upon his investment until he is 60 years old. See table which follows.

ACCUMULATION TABLE, PLAN A

Showing the rate of accumulation of a competency by saving \$500 per year from the age of 35 to the age of 55 and investing the savings at 5 per cent. compound interest until the age of 60.

Invested at the end of the dentist's	Value at the end of the dentist's					
	36th year	40th year	45th year	50th year	55th year	60th year
35th year	\$525	\$635	\$810	\$1,035	\$1,325	\$1,690
36	605	775	990	1,260	1,610
37	575	735	940	1,200	1,535
38	550	700	900	1,145	1,460
39	525	670	855	1,090	1,390
40	635	810	1,035	1,325
41	605	775	990	1,260
42	575	735	940	1,200
43	550	700	900	1,145
44	525	670	855	1,090
45	635	810	1,035
46	605	775	990
47	575	735	940
48	550	700	900
49	525	670	855
50	635	810
51	605	775
52	575	735
53	550	700
54	525	670
55	635
Total.....	\$22,750

The annual income from \$22,750, at 5 per cent. simple interest, will be \$1,137.50 per year.

Such an investment is possible to a dentist who consults a reputable banker, who can purchase good securities paying 5 per cent. (though some good mortgages pay 6 per cent.) who guards his investments against loss, and who accumulates his savings and invests them with his interest.

It is to be observed that money invested in non-dividend paying investments, in the furnishings of the home, or in the home itself, unless it nets at least 5 per cent. on the amount invested, is not to be considered here.

ACCUMULATION BY MEANS OF PLAN B

After much study of the subject of insuring a competency in old age through the purchase of insurance, the writer has adopted Plan B, as outlined by The Provident Life & Trust Co., of Philadelphia, and by the courtesy of that company is enabled to offer the following information. The figures here given assume that the dentist purchases an endowment insurance policy at the age of 35 years, when his wife is 33 years old; that he will make twenty annual payments, and will arrange for the policy to mature when he is 60 years of age.

The holder of this form of policy has several options, as to its payment after maturity, among which he may choose, and which he may change at will. If he lives

to the age of 60, he may draw the face of the policy in cash; or he may arrange that he and his wife shall receive a yearly income so long as either or both are alive; or that they may receive the proceeds of the policy in from ten to thirty annual installments; or that a part of it may be drawn in cash and the balance in installments. He may provide that if he dies the proceeds of the policy shall be paid to his wife, all at one time; or for the benefit of wife and children in specified proportions; or that a specified amount shall be paid to the wife or children in cash and the balance in annual installments, or in specified amounts as an annuity. He can constitute the company a trustee for the benefit of those he wishes to provide for, and compel the payment of specified amounts in a specified manner.

In order to provide for the payment of \$100 per month to the dentist or his wife, as long as either may live after the dentist is 60 years old, it is necessary to purchase a policy having a face value of \$20,000. At the age of 35 this calls for a premium of \$829 the first year (in one case which came under the writer's observation, this was reduced by dividends to \$751 at the end of the first year, to \$729 at the end of the fifth year, and to \$698 at the end of the tenth year).

In this form of policy the dentist's payments are completed in twenty years and the policy matures as an endowment five years later. As has been mentioned, the amount of each premium, after the first, is reduced

by a dividend declared by the company, and the dentist is in receipt of these dividends annually, from the time of his second payment until he reaches the age of 60. The amount of these dividends is not deducted from the face value of the policy.

The insurance feature in this form of policy is of quite as great value as the income feature, for if the dentist dies after the payment of the first premium, the beneficiary will receive either the face of the policy in cash or considerably more than the face of the policy in annual installments for a specified number of years, or an income for all the years she may live, as outlined by Tables 1 and 2 following. The form in which payment shall be taken may be determined by the dentist at the time of taking out the policy, or at any time during the continuance of the policy, or by the beneficiary when the policy is matured by age or death.

Thus, if John Doe, D.D.S., purchased a policy of this form for \$20,000, at the age of 35, and died immediately after paying the first premium, Mrs. Doe would receive \$20,000 in cash, or \$990.60 per year (\$82.55 monthly) for thirty years, a total of \$29,718.

RECEIVING THE PROCEEDS IN INSTALLMENTS

The following table shows the annual premiums necessary at the age of 35, on policies ranging in amount from \$20,000 to \$5,000, and the amounts payable to the dentist in 10, 20, and 30 annual installments if he lives

beyond the age of 60, or to the beneficiary if he dies at any time after the payment of the first premium. A little computation will show that these payments return to the dentist or the beneficiary considerably more than the face value of the policy and a much larger amount than he actually paid in cash, because of the dividends deducted annually from the premiums. This is possible because the policy is credited with accumulated earnings. Thus, the matured \$20,000 policy, taken in thirty annual installments, returns to the dentist \$29,718, which is \$9,718, or nearly 50 per cent. more than the face value of the policy, and will probably be approximately twice as much as he actually paid.

If the proceeds of this policy are taken in twenty annual installments, the beneficiary will receive \$26,104. Ten annual installments will return \$22,760.

This form of installment payment has a most important provision in that any portion unpaid at the death of Doctor Doe or Mrs. Doe, is payable to the children or any other specified beneficiary. Thus, if at the age of 60, Dr. John Doe elected to take thirty annual installments of \$990.60 each, but should die at the age of 65, the installments would be continued to Mrs. Doe. If Mrs. Doe should die at the age of 68 years, twenty installments still being unpaid, these twenty installments, or the remaining cash balance, would be paid to the children, the estate, or any other specified beneficiary.

TABLE NO. 1. INSTALLMENT PAYMENTS

Face of Policy	Annual Premium* (Age 35)	Proceeds in Annual Installments		
		10 installments	20 installments	30 installments
\$20,000	\$829.00	\$2,276.40	\$1,305.20	\$990.60
15,000	621.75	1,707.30	978.90	742.95
12,500	518.13	1,422.70	815.75	619.13
10,000	414.50	1,138.20	652.60	495.30
7,500	310.88	853.65	489.45	371.47
5,000	207.25	569.10	326.30	247.65

TABLE NO. 2, GUARANTEED BENEFICIARY'S INCOME

Face of Policy	Monthly to Dentist after 60 or to wife for life, 10 payments guaranteed	Monthly to Dentist after 60 or to wife for life, 20 payments guaranteed	Monthly to Dentist after 60 or to wife for life, 25 payments guaranteed
\$20,000	\$100	\$93.70	\$87.93
15,000	75	70.27	65.95
10,000	50	46.85	43.96
5,000	25	23.43	21.98

The payments in this table differ from those in the foregoing table, in that they are more in the character of annuities, that is, payable for life. If Dr. John Doe elects to take his matured insurance in the form of income, as per this table, the company agrees that so long as either he or Mrs. Doe may live after the age of 60, it will pay to both or either, the sum of \$100 per month, with the understanding that if both die after ten yearly payments of \$1,200 each have been paid, the policy lapses and nothing remains to the children. He may, however, elect to receive \$97.70 per month, in-

* Dividends on premiums not deducted.

stead of \$100, in which case the company will guarantee the payment for at least fifteen years, so that if Dr. Doe and Mrs. Doe die before the fifteen years, the payments will be continued to the end of the fifteenth year to the designated beneficiary. If Dr. Doe will accept \$93.70 per month, the company will guarantee to continue the payments to Dr. and Mrs. Doe for life, or to any other beneficiary after their death, until twenty annual payments have been made. In the same way, the company will agree to pay \$87.93 per month to Dr. and Mrs. Doe or either, for life, or, in the event of their death before Dr. Doe reaches the age of 85, to continue the payments to the next beneficiary until twenty-five annual payments have been made. The table shows the payments under similar terms on policies of \$20,000, \$15,000, \$10,000 and \$5,000.

It will be noticed that the annual payments in Table No. 2 present what is, to the individual dentist, a sort of a gamble on the length of his life. Thus, if he purchases a \$20,000 policy he is assured that so long as either he or his wife lives, \$100 will be paid monthly, but if he and his wife die immediately after the tenth annual payment has been made, the policy lapses, and only \$12,000 has been paid. On the other hand, if he or his wife lives to the age of 85, he will have received \$30,000, with payments to be continued as much longer as either may live. Thus, he runs the risk of securing for himself and his estate only \$12,000 on a \$20,000

policy, or of securing for himself and his wife more than \$30,000 on the same policy. Where there are no minor children to be provided for, this plan may be desirable for all or part of the face of the policy, because it assures a stipulated income as long as either he or his wife lives.

Where there is a child, who through affliction, is unlikely to be capable of self-support and for whom provision throughout life is to be made, a policy of this sort, with the child as beneficiary, has the advantage of providing a stated monthly income as long as the child may live, and the company may be made the trustee for such payments. An instance has just come to notice in which a man, whose child was born blind, has taken out such a policy, the proceeds of which will be devoted to the child's support.

The figures given in Table No. 1 as annual premiums are based upon the beneficiary being 33 years of age when the policy is purchased. In the case of a child the premium would be larger, because of the probability that the child will live much longer and more payments will be necessary.

It may be desirable for the dentist who can purchase from \$10,000 to \$20,000 of insurance to divide it into different policies and to arrange for the payment of the proceeds of one on the installment plan, and one on the beneficiary's income plan. Thus, if he is able to purchase two \$10,000 policies he or his wife will receive

from one, \$652.60 yearly for twenty years and from the other \$50 per month as long as he or his wife lives. An income of \$1,252.60 for twenty years, and \$600 per year for as long thereafter as he or his wife may live, is thus assured.

Should the wife of the dentist die before the dentist reaches the age of 60, the payments in Table No. 2 will be materially increased.

If Plan A and Plan B could be carried out exactly as outlined here, Plan A would be much preferable, but Plan A is so much more difficult of accomplishment as to make Plan B very attractive. Without the sense of obligation, it is difficult to unfailingly invest the \$500 called for in Plan A; individual investments are likely to prove bad as to either principal or interest; the immediate investment of dividends to net 5 per cent. calls for judgment and attention; and if the principal falls into the hands of the widow or children, the chances are two to one that it will be dissipated without accomplishing its purpose.

Plan B is more desirable in spite of the larger annual premium, because, having assumed the obligation, every effort will be made to meet the annual payments; because the investments of the insurance company are so large, so carefully selected and so widely distributed, that any loss to the dentist is very unlikely; because no selection of investments or attention to the investment of dividends is required of the dentist; because the fam-

ily is assured of ready money immediately upon the death of the insured and for life; because the family can know in advance precisely what its annual income will be; and because the danger of the widow being defrauded of what has been provided for her, is negligible.

THE POSSIBILITIES OF ACCUMULATING A COMPETENCY

If the tables in the foregoing chapters be taken as representative of the earnings of dentists in general, it is apparent that no dentist with gross annual receipts of less than \$3,500 per year has much chance of securing a competency of \$100 per month for life, and that of the dentists with gross annual receipts of \$3,500, only those of strong character, keen foresight and much determination can accumulate \$22,000 by investment methods which are regarded as safe. It appears that the average dentist with gross annual receipts of \$3,500 has a net annual income of about \$1,943. In order to save \$500 of this sum yearly, he must support himself and family on \$1,443 annually. This is possible, but under present conditions it is more difficult than the statement makes it appear, and it is improbable that a dentist handling \$3,500 annually will hold himself and his dependents to the most rigid economy through life.

Nearly similar conditions confront the dentist with gross annual receipts of \$4,000. In order to save \$500 annually he would have to live on not more than \$1,519

annually, or \$30 per week, which is possible, but improbable. The dentist with a \$4,000 practice rightly thinks himself to be doing well. His tastes and desires outrun his income. The thought of shutting them all off, of giving the children merely common or high school educations, and of rigid home economy, is abhorrent to him.

HOW A COMPETENCY MAY BE ACCUMULATED

A competency of from \$75 to \$100 per month may be accumulated by any dentist who will develop his practice to that condition which permits him to pay all his business expenses and to receive remuneration sufficient for comfortable support in the present and for savings of from \$400 to about \$800 annually from the age of 35 to the age of 55.

The development of the practice to this condition may demand much attention and effort on the part of the dentist, but the administration of the net income to afford the savings will demand, from most people at least, much more earnest, thoughtful and constant attention than is required to develop the practice. The latter task is more difficult than the former, in that it makes greater and longer continued demands on the moral courage, in the practice of the necessary self-denial.

Any one who does not think that a consistent course in saving money from a moderate income requires some-

thing of the same quality of moral courage that sent the Pilgrim Fathers to Plymouth, should try it. To stay at home from dinners and the theatre when well liked friends are going; to walk when others less well provided for drive automobiles; and to refrain from a thousand things one has the money to do, because one knows the needs of the future, requires a high degree of moral courage.

The income can be successfully managed only by the coöperation of all members of the family. In many families, the wife is the spending agent or the purchasing agent. It is evident that the amount remaining will be directly determined by the amount spent. Dentists who feel that they have something to complain of on the grounds of excessive expenditures for the home, may correct it by taking their wives into full partnership in the present achievements and future hopes. One of the very best correctives for injudicious spending is to let the woman have money of her own and help her to accumulate some in the savings bank. The first dividend on her savings will have a pronounced effect on her idea of spending. This point is well brought out by the following incident.

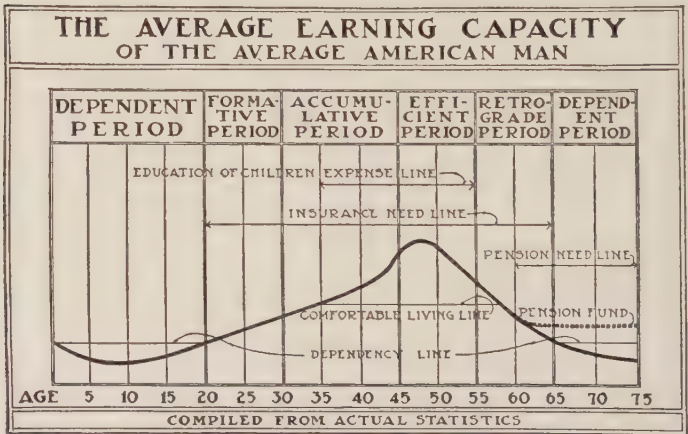
A certain dentist said to his wife, "You spoke about having some new furs. Blank & Co. showed me a real seal muff and neckpiece that I think would about suit you." The wife said nothing for a moment, then rose from the table and returned with her bank book and a

pencil. "I find," said she, "that I have \$1,000 in the bank, and that if I buy the furs I must break into it. I don't think I'll take them. You see," she added, "when you know you have plenty of money to buy a thing, you don't care half so much whether you have it or not."

THE DIVISION OF THE INCOME

The accumulation of a competency requires that the income shall be divided into a certain amount for all forms of expenditures and a certain amount for saving. Expenditures in the present must be ordered by known needs in the future.

The two following diagrams taken from "The Manning Home Budget" show the average earning capacity of man at different ages, and divisions of the annual



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income which have been found satisfactory in thousands of thrifty American families.

YEARLY HOME BUDGETS
OF FAMILIES AVERAGING TWO ADULTS AND TWO CHILDREN

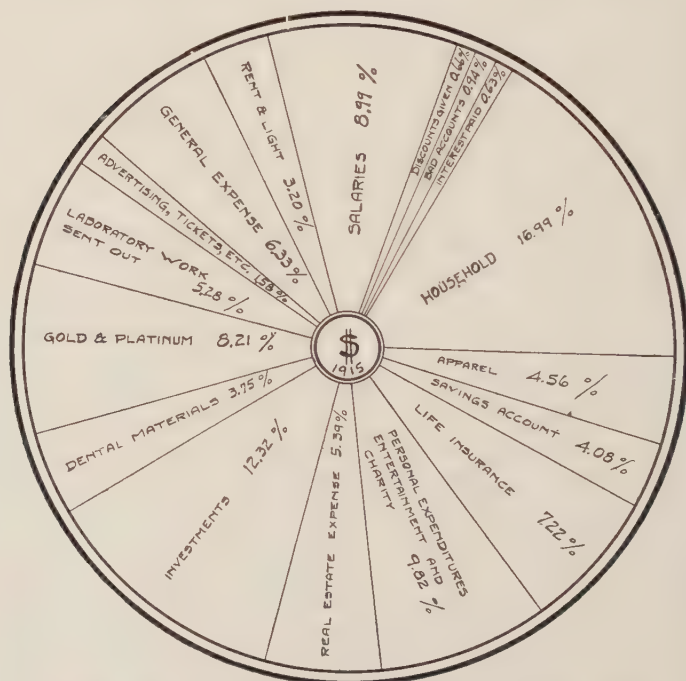
YEARLY INCOME	FOOD	RENT	CLOTHES	OPERATING EXPENSE	ADVANCE- MENT	INSURANCE AND SAVINGS
\$1000	\$300	\$200	\$100	\$150	\$100	\$150
1200	330	300	150	150	100	170
1500	375	300	150	225	200	250
1800	400	400	200	270	240	290
2000	450	400	250	350	250	300
2500	500	400	250	450	450	450
3000	550	500	325	550	450	625
3500	650	575	475	575	500	725
4000	675	600	500	625	600	1000
5000	725	700	650	750	775	1400

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The item "Food" includes groceries, meat and fish, man's lunches. "Rent" includes rent, taxes, mortgage payments, repairs and upkeep. "Clothes" includes anything to wear. "Operating Expense" includes servants' wages, telephone, laundry, fuel and ice, light, household equipment, fire insurance, incidentals, carfare. "Advancement" includes charity, tuition, books and magazines, vacations, music, travel, social clubs, amusements, lectures, doctor's bills, medicine, gifts. "Insurance and Savings" includes investments, savings, life, health and accident insurance.

THE IMPORTANCE OF SAVINGS

It might be thought that if any one could dispense with the habits of saving and make a fortune by some of those unexplained ways which always lodge as possibilities in the mind of the person untrained in money matters, great bankers could either omit the saving or could point out the way to make the miraculous fortune. It is worth while to quote from Spencer Trask & Co.,



Dr. Nils Juell schedules the expenditure of his annual gross receipts in this manner

who are located in the heart of that financial district where great fortunes are supposed to be made overnight. They say: "While there are instances where the rise to wealth has been sudden or unexpected, such cases are so extremely rare that the sooner a man admits to himself that similar good fortune is beyond the realm of his possibilities, the more eager will he be to get down to the really practical work of accumulating his competency. Until a man gets it in mind that money must be saved before it can be accumulated, he fails to take the first step toward building up a competency. Hence it is by systematic saving and conservative investment that men are best able to make steady and consistent progress."

THE INFLUENCE OF UNBUSINESSLIKE METHODS

One of the results of our unbusinesslike methods of procedure is that dentists have not known in the past how much of the money received was personal property and subject to personal direction. The estimate of office expenses has often been too low, with a correspondingly high estimate of the personal income. And expenditures have often been ordered on the basis of the estimated income.

This liberality in estimating has led many dentists to despise the small savings as unworthy of effort, or the low rate of interest as undesirable. They have not cared to bother to save \$5 or \$10 or \$20, but have un-

consciously decided to wait until they could save a hundred or two at a time, not realizing how rarely those times come. They have neglected 5 per cent. interest for the wild-cat proposition with a promised 15 per cent. or 20 per cent. but an actual minus 100 per cent. of principal and interest.

It will be well to get it plainly in mind that the foundation of the competency will be in the prosaic, humdrum, day-to-day saving of \$5 or \$2 or \$1 and the putting it aside for the future. The saving will usually be at the expense of something that some one in the family wants, and every thousand dollars will represent one thousand ungratified wants.

“THE LITTLE FOXES THAT KILL THE VINES”

The greatest difficulty in connection with the accumulation of a competency seems to be that with the handling of the money the imagination leaps forward far beyond proper bounds, as to the possibilities of pleasure which it offers, and once one has gone forward in this line, it is very difficult to go back. It is much harder to retrace one's steps than never to have gone forward. The saving for a competency is usually prevented by numerous little expenditures, no one serious in itself, but cumulatively fatal. With each little additional luxury, the desires creep forward, and what was a luxury last week is become a necessity this week.

The financial story of a dentist who recently came for

advice illustrates this very well. He had succeeded professionally and financially, and he and his wife had lived economically until the annual net income was \$4,000 per year. At this time they moved into a better neighborhood and into a house for which they paid \$40 per month. They formed new friends and dressed a little better, on social occasions, but still saved over \$1,000 per year.

The man had always been very fond of boats and now he bought a small yacht for \$350 and installed a motor at an expense of \$200. They enjoyed this boat a year, joining the local yacht club at a cost of \$120 the first year and \$65 per year thereafter, in addition to the sums spent at the club, a luxury unknown to them before. After two summers of this, certain things about the boat not being as satisfactory as they appeared at first, they sold the boat at a loss of \$170 on the purchase price. The various expenditures had consumed about \$500 each year or about half of the amount they had determined to save. Seeing the effect of these luxuries on the savings, they did without a boat for a year, but the pull of the memory of pleasant days and hours was too strong, and they bought a larger boat for \$900, and spent about \$100 in alterations.

That summer they made an extended cruise, taking a party of friends who shared the expense. Even under these conditions the expenses were very heavy, and at the end of the year there were no savings. The next

summer they used the boat but little, and at the end of the season sold it for \$500.

After a year of courageous self-denial but successful accumulation, they bought a second-hand automobile, and like most owners, toured somewhat, paying out, as hotel bills, sums they had not been accustomed to spend. The following summer they traded the second-hand car toward a new one, paying \$1,400 difference. At the end of two years more they traded this car toward a new six-cylinder car, paying \$800 difference.

The past summer they installed a chauffeur to drive the new six. Now their financial condition gives cause for anxiety. Their expenses are heavy, and while the income has increased somewhat, it has not mounted in proportion to the expenditures. They are unwilling to go back to the little house with the economical management and the savings that gave them trouble at the time, but made them quietly happy under it all. They rebel at the thought of giving up the car and the clubs and the pleasant hours. Yet age comes on apace and they feel the forerunning shadows of its responsibilities and necessities. It is fatally easy to go forward. It is hard to go back.

Such instances can be multiplied, in some degree, from every walk of life in which men previously without money come into the handling of considerable sums for which they render only partial accounting to the present and future.

THE HISTORY OF THE SPENDERS

The history of the members of the dental profession is studded with stories of men who have risen to social and professional success, who have built up great practices, who have been in receipt of much larger sums of money than ever before in their lives, and who have put into practice the gospel they preached of disregard of the financial side of practice. They took care to work only for those who could pay them high fees, but they neglected all other business management.

Some of these men lived lavishly. Nothing so sordid as a division of their receipts into the portion which belonged to their creditors and the portion which belonged to them ever crossed their minds. They would have hooted the idea of economy for a competency out of hearing. "While you have a dollar, spend it like a king," and "I shall never want a thing more than I want it to-day," were their mottoes. Fine homes, good clothes, lavish tables, fast horses, etc., were the trappings of their existence, out of office hours.

When the writer first came to New York the stories of these dentists and their great earnings had been to him as the story of legendary heroes. But he soon learned that there was another side. His first shock came when a collection was taken to buy a wheel chair for a dentist who was reputed to have earned \$30,000 gross, yearly, for many years. One arose in the meeting and explained that this old dentist was now in a poor-

house, that he slept in a charity bed and ate charity food. He was very feeble and wanted to be moved to the porch that he might see the grass and flowers a few times more before he died. The chair was bought, and this dentist who had preached concentration on the operation and neglect of economics, who had earned largely, who had lived like a prince and doubtless by his words and precept had influenced many others to do as he did, enjoyed a few charity rides, ate a few more charity meals, died between charity sheets and lies in a charity grave.

In some cases the devastation has been even more complete, because the dentist has succeeded in impoverishing not only his own life but the lives dependent upon him for support to such an extent that the bodies of some of the children have been rescued from the potter's field only by the charity of the father's associates.

THE DENTIST'S INCOME COMPARED WITH OTHER INCOMES

If the total remuneration of each group of practices, as given in the table on page 146 be divided by the number of practices in the group, it is seen that the 250 practices reported in this book can afford remuneration about as shown on the following page. It is not claimed that these practices are representative of all dental practices, or that the method of estimating expenses and net receipts used in the foregoing pages will be acceptable to all.

17	Practices.....	\$ 687
6	"	952
10	"	1,378
14	"	1,424
14	"	1,441
10	"	1,631
27	"	1,734
15	"	1,943
19	"	1,973
13	"	2,029
20	"	2,202
6	"	2,333
11	"	2,445
7	"	2,469
2	"	2,479
8	"	2,841
8	"	3,550
8	"	3,832
5	"	3,885
5	"	4,028
2	"	4,365
5	"	4,781
2	"	5,132
5	"	5,433
4	"	5,571
5	"	5,614
1	"	6,671

The Harvard Medical Alumni Association published in a most interesting book, entitled "The Profession of Medicine," the results of their studies into the doings and opinions of the graduates of ten classes of the Harvard Medical School, 1901 to 1910 inclusive.

Among other interesting data the booklet contains the following table of the earnings of graduates. These are believed to be the gross earnings or receipts.

AVERAGE EARNINGS OF PHYSICIANS

Year in Practice	CLASSES									
	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910
1st	\$866	\$787	\$541	\$362	\$625	\$502	\$350	\$533	\$425	\$1237
2d	827	1089	790	995	773	826	588	1250	874	1083
3d	1181	1539	1412	1295	995	1262	1353	1025	1370	1578
4th	1505	1694	1720	1566	1559	1765	1963	1575	1632	1835
5th	2027	1556	1966	1981	1818	2359	2347	1847	2150	..
6th	2341	1837	2333	2277	2347	2997	3202	2360	..	..
7th	2527	2161	2654	2967	3043	3650	3545	..	..	..
8th	3003	2491	3155	3042	3337	4332	..	..	..	..
9th	3560	2900	3616	3604	4500	..	..	..	..	..
10th	3524	2963	4135	4535	..	..	..	..	..	..
11th	3885	3691	4604	..	..	..	..	..	..	..
12th	4422	4130	..	..	..	..	..	..	..	..
13th	4680	..	..	..	..	..	..	..	..	..
Max. no. of men..	38	39	29	39	33	26	29	29	25	26

It is unfortunate that investigations into the incomes of those other professional men whose earnings might best be compared with the earnings by dentists have never been made, or at least no other reports are known to exist. In 1904 Dr. Shrady, of New York, writing in *The American Medical Compend*, estimated that 100,000 physicians in America averaged between \$800 and \$1,000 annually; and Dr. Taylor estimated:

100,000	physicians	with	incomes	of	\$1,000	per	year
20,000	"	"	"	"	2,000	"	"
8,000	"	"	"	"	3,000	"	"
5,000	"	"	"	"	5,000	"	"
1,500	"	"	"	"	10,000	"	"

These estimates were made before the days of highly developed specialization among practitioners of medicine. They may still apply to general practitioners, but they certainly do not apply to many of the specialists, as the following incidents illustrate.

An acquaintance needed careful dental service and patronized one of the highest priced dentists in Philadelphia. It required thirty hours of work by the dentist. About the same time, his daughter sickened and was operated on for appendicitis. It required thirty minutes of the surgeon's time. The surgeon's bill was \$16 per minute, the dentist's bill was \$16 per hour.

A member of the writer's family was operated upon, requiring forty-five minutes of the time of a surgeon no more skilled in his line than are hundreds of dentists in theirs. His bill was \$5 per minute.

The writer recently contracted an earache from a cold wind. He consulted a specialist, who said, "Wait a minute." He then blew the Eustachian tubes open and said, "Only \$5." Elapsed time, five minutes.

What dentist receives fees equal to these?

Some years ago the Labor Bureau of Massachusetts published a report showing the following:

	AVERAGE INCOMES	AVERAGE EXPENDITURES	AVERAGE SAVINGS
Bankers and Brokers	\$7,726	\$5,338	\$2,388
Lawyers	4,169	2,685	1,484
Physicians	3,907	3,190	717
Clergymen	3,150	2,581	469
Farmers	1,426	1,172	254

In reply to a recent communication asking further information concerning these figures, the Bureau writes that it does not think these figures should be taken too seriously at the present time.

The average pay of principals of high schools is reported as \$1,542, and of high school teachers as \$1,303.*

The average pay of Methodist preachers is not given, but 7 per cent. of them receive between \$1,500 and \$2,000.*

Only 6 per cent. of the families in the United States have a net annual income in excess of \$1,200.*

“THE SPECTER OF PAUPERISM”

What are the net results of these financial conditions among all people, when they reach the ends of their earning periods? The answer is startling. Under the heading appropriated for this paragraph, The Indianapolis Life Insurance Co. quotes from an article by S. W. Strauss of Chicago, published in *Leslie's Illustrated Weekly*, as follows: Of every 100 people who die, 66 leave no estate whatever; of the remaining 34, 25 will leave an average estate of only about \$1,300; only 9 will leave more than \$5,000. Ninety-eight per cent. of the American people are living on their wages from day to day, and a loss of employment would mean pauperism for all but 2 per cent. At the age of 65, 97 out of every 100 are partly or wholly dependent upon relatives, friends or the public for food and clothing.

* Streightoff.

The same company quotes from an article in *The American Magazine* in which the figures are especially interesting to dentists because the comparison starts with the age at which the dentist averages to graduate into practice, 25 years. The quotation says: "Out of 100 average healthy men at the age of 25, at the age of 65, 36 will be dead, 1 will be rich, 4 wealthy, 5 will be supporting themselves by work, and 54 will be dependent upon friends, relatives or charity."

THE WEAKNESS OF COMPARISONS WITH OTHERS

It is a very common weakness for one who is confronted with the thought that he is not doing as well as he should, to look on the lives about him, and seeing in more or less detail the conditions described in the preceding paragraph, say, "I'm doing as well as others, why should I worry?" The answer is very direct and pertinent.

In spite of our inter-actions with others, each life stands, in certain respects, upon its own foundations, and makes its own failure or success. And the failure or success is proportionate to the opportunities, the possibilities and the achievements in that life, almost without regard to the conditions in adjacent lives.

The opportunities and possibilities open to the dentist are much greater than those open to the unlettered laborer, the child who never had a chance, the clerk, the mill hand, etc. The dentist starts his professional life



At the age of 65, 97 out of every 100 people are partly or wholly dependent upon relatives, friends or the public for food and clothing

with an investment equal to practically four-fifths of the total estate that one person in eleven manages to accumulate by the age of 65 years. He begins practice as a specialist, with a mind trained to render service of great value to individuals and communities. His opportunities are so great that no other person may be the architect of his achievements, but only he alone, and within reason, his accomplishments will be limited only by his power.

Those opportunities will be greatly extended when the dental colleges see their way clear to institute courses in practical dental economics.

That these opportunities are open to other lives and that they are often but feebly seized and used, is beside the mark. The dentist's responsibility for the use he makes of his opportunities is individual. He cannot escape it or lessen it or avoid the consequences of neglect by noting that lawyers and physicians and others often do no better. He is face to face with the structure of his life work. He must build something. What he builds will be the measure of his ability, of his foresight and of his strength. He may build an imposing façade of professional skill and reputation, and behind it the wobbly structure of a financial failure, or he may build evenly throughout, or he may build a professional failure and a financial success. But when it is done it is the measure of the man and he is responsible. As Ruskin says, "A man may hide himself from you in all

other things, but in his work you have him, and from that work you can tell what manner of man he was."

The dentist then faces such opportunities for financial success as only a small percentage of people ever enjoy; he may shape his future almost as he will; and his responsibility is individual and is in proportion to his opportunities. Nor can failure be evaded or excused because of failure by others enjoying similar opportunities.

There is no alternative for the dentist. He must provide, in his great earning period, a competency for old age or he will come, if he lives, to dependence on charity. And the competency will be accumulated only by clear-headed, strong-souled, consistent and persistent economy and accumulation.

CHAPTER TWENTY-FOUR

A POSSIBLE COLLEGE COURSE

The opportunities of the dental colleges for shaping the lives of dentists, for advancing the standard of quality in dental and public service and for elevating the standing of the profession in the eyes of the world are so great that they cannot be fulfilled by training men only in technic. Communities judge dentists by their technical skill far less than the colleges would have us believe, and a reasonable professional success in practice may be achieved with only an average degree of professional skill, if one has the necessary social and business training.

THE QUOTATION FROM EMERSON

Most dental students have had dinned into their ears Emerson's famous statement to the effect that the world will tread a path to the door of a man who can do a thing better than anybody else, and have been told that they need only to be able to render better dental service than anybody else to have all the patronage they want at their own fees. If this were literally true, it would not solve the question of success in practice for 99 dentists in 100; first because few dentists can render

such a superlative quality of dental service that it is generally known to be better than any one else can render; secondly, because it takes most of a lifetime for a dentist to win much less fame than this; thirdly, though such a dentist received enormous fees he might die in poverty unless he cared for his earnings intelligently, as have many of the greatest money-earners the dental profession has known; and lastly, because such a program makes no provision for the welfare of the other 99 dentists in the 100 who must earn livings by rendering dental service, whom the world needs and who will determine the estimation in which 99 per cent. of people will hold dentistry and dentists. Emerson's phrase was probably never intended as an excuse for not learning to live among our fellows and work with them.

THE DENTAL STUDENT'S PREPARATION

Hundreds of students annually enter dental colleges immediately following the close of their high school courses. Most of these boys know nothing of actual life unless it has been taught them in their homes. How can they? Their time has been passed in study of theoretical and often improbable relations to the other members of the community. The special study in dental college does not fit them to launch out upon a career in which many of the most important elements of success are economic, and under conditions which necessitate for success either the possession of a trained

mind, or a long period of loss and privation while the mind is unlearning many things it has been taught and grasping the elemental facts it should have been taught.

PRESENT AND POSSIBLE ACCOMPLISHMENTS

The accomplishments in the dental profession to-day are the accomplishments of the men who have survived the struggle for existence and have held fast to that which is good of what they learned in college. It is conceivable that many of the brightest minds have been unsuited to survive the struggle and have been lost to the profession, when, if fitted for the struggle, they might have survived and benefited the profession and the world. Not all who perish deserve to perish. The world can not afford to have all such perish. Much has been accomplished. More could be accomplished by instructing the dental student how to get a living with what he has learned than by any course which teaches him to work, but not how to find the opportunity to work.

VIEWS BEFORE AND AFTER GRADUATION

The average dental student doubtless looks forward to his dental college course as the only training required to fit him for the successful practice of dentistry. He knows nothing of the difference between its professional and economic elements. He feels that when he has completed the course he will need only to put into effect

what it teaches him, to be assured of an honored position in the community, constant employment and financial sufficiency.

Ten years after graduation, looking back, he will see that the course taught him only the scientific fundamentals and technic of service, and that his financial success has been determined far more by the exercise of personal and business qualities than by the possession of unusual technical skill. He may look about him and see that many of the finest technicians of whom he knows are unappreciated by their communities, are serving but few patients, are compelled to live narrow lives in the present and have no financial hope for the future. On the other hand, he will see many of greatly inferior technical skill serving great numbers of patients, and in receipt of large sums of money.

THE FACULTY'S VIEW OF THE COLLEGE COURSE

may be different from either of the above views. It may be that the dental college is responsible only for the teaching of the fundamentals of the scientific part of dental practice. The members of the faculty are likely to be conscious that they are confronted, on every hand, with insufficient knowledge of the human organism and of the teeth as parts thereof. They know that the three or four college years are all too few to teach the student what he needs to know. In this they are right. All of his life will be too short, and just when it is time for

him to die, he will feel that he is really beginning to learn something.

There is no question as to the value of a thorough scientific and technical course for the dental student, and nothing in this book is intended to minimize the value of such a course. It is realized that only a beginning in the training of the student can be made in the college course; that a choice among the possible subjects must be made; that some must be omitted. The writer's contention, based on experience and extended observation, is that the subjects connected with the economics of service should not be excluded when making such choice and that room for their study and practice during the senior year, should be made even if it is necessary to limit the extension of some of the scientific courses, or to omit such subjects as embryology, biology or rhetoric. Few dentists will use the embryology or rhetoric, but every dentist will stand or fall by his use or misuse of the economics. The four years' courses now coming in should afford opportunity for such a course in economics in the senior year.

UPHOLDING THE DIGNITY OF THE PROFESSION

No one questions that the colleges are anxious to uphold the dignity of the profession. Most graduates of recent years have signed an agreement with their colleges that they will not do things calculated to lower the standing of the profession they are entering.

It is, however, of little use to exact a pledge which the maker is unable to keep. The young graduate, usually without business training, who opens his own office on slender financial means, assumes a burden of monthly expense composed of items which, taken singly, he could meet, but which may make a total beyond his means. There are the office rent, payments for a few supplies, notes for payment for his equipment and perhaps his furnishings, and his own living expenses. The average dental graduate has no training in methods of getting practice, or in establishing fees, or collecting what is due. He is very apt to have a one-sided view of ethics and to order much of his conduct on impractical lines.

Those men who have had previous commercial training get through this period fairly well. They know how to get patronage, have an undefined sense of what fees should be and collect promptly. Men who have inborn commercial sense, untrained, get through the "starvation period" somehow, but learn only after many years what they might easily be taught in their senior year. Men without commercial experience or sense often fail miserably and drift wholly out of the profession or into forms of practice contrary to their oath. It is difficult to make the force of an oath appeal to a man who is financially bankrupt, and for whom salvation lies only along the forbidden road.

The actual dignity of any profession is only the meas-

ure of the conduct of its members, whatever the theoretical dignity may be. The colleges are turning out fine bodies of young men, imbued with high ideals. Those ideals will be wrought into deeds only when the young man has learned enough about his activities in contact with the world so that he can support himself and devote himself to them. They cannot be achieved by the dentist regularly placing 75-cent amalgam fillings, or \$5 gold crowns, with the treatment free. Thousands of dentists will start on the task of more fully achieving their ideals when the net incomes from their practices are sufficient to relieve pressing obligations. The writer is frequently in receipt of letters saying, "I am managing my practice better, am making money, am steadily improving the quality of my service, and am happier than ever before."

ELEMENTS OF INSTRUCTION IN ECONOMICS

The following suggestions outline a few of the possibilities in instruction in the economic elements of practice which might be made into a course of instruction for senior students, or which a student might carry out, in part, for himself.

The Office Inventory. When the student selects his senior operating outfit, let him select a chair, cabinet, etc., and enter the prices on a sheet like that on page 61. His operating and laboratory outfits will permit filling in the form, with only the addition of such furniture as

he proposes for the reception room. Let this inventory be used as part of his basis of costs, in different examples during the year.

Let him decide, merely for purposes of instruction, whether he proposes to locate in a town or city, and learn as closely as possible what the various items of overhead expense, as given on page 62, will be in the quarter of the city or town in which he proposes to locate, and fill in the schedule, to be used, with his inventory, as a basis of computations.

The inventories and list of overhead expense should form the basis of classroom work in which they should be analyzed and the advantages of different expenditures for investment and expense compared. Intelligent discussion of this subject will be of great advantage to the students.

The Consultation Chart. Operating students should be required to fill out a Consultation Chart for each of a considerable number of patients, showing first the condition of the mouth as a whole, as to its cleanliness and capacity for discharging the functions of mastication and speech, and then as to the conditions of individual teeth. Such charts should be examined and graded by a competent instructor with the patient present, and may form part of the work on which the student is rated.

The habit of filling in such charts would establish the much needed habit of regarding the mouth as a functioning organ before examining the condition of individual

teeth. This habit is almost unknown to dentists and patients suffer serious losses. It will develop opportunities for selling service of which the patient is in need. Perhaps more needed service remains unsold than is brought to patients' attention.

Opportunities for presenting to patients the need of such service may form an excellent basis for classroom exercises. The different forms of service possible and the arguments therefor may be developed. The average cost of the different forms of restoration may be brought out as shown in the foregoing chapters or from figures to be developed by the students.

The Time Records. If forms like those on pages 260 and 261 are furnished students, they may be required to note the time for each form of restoration accomplished for different patients. If the inventory and expense records be used as a basis of computation, and if the remuneration be fixed at \$100 per month, the student will be taught the method of computing fees which will assure him a remuneration. The longer times required by the student will not invalidate the method, though the totals will be of little value.

Class exercises on the presentation of fees to patients may easily be developed and will prove helpful when the young graduate faces the actual patients.

Bookkeeping. The foregoing records will form an excellent basis for teaching how the books of a practice should be kept to show profits or losses. The method

suggested in Chapters Eighteen and Nineteen is really more simple than the description makes it appear and could easily be taught to students.

THE PRACTICAL VALUE OF THIS INSTRUCTION

If senior dental students were given a practical course in the economics of dental service, they would be much better prepared to meet the problems of selecting a location, the equipment of an office, the development of a clientele, the selling of service, the establishment of fees fair to the patients and themselves, payments for indebtedness and the accumulation of a competency. It is probable that the great earning period could be lengthened at least 5 years, because dentists would probably average to reach full practice in 5 years after graduation, instead of about 10 years, as at present. Each year of practice would be more profitable; the false glamour now attending upon many advertising practices would be torn away; and men would be less likely to be forced or to drift from ethical into unethical practice. Dentists generally would seek and develop opportunities to exercise their greatest skill in return for suitable remuneration; and the average quality of dental service would doubtless be materially elevated.

THE CLOSING WORD

BROTHER BILL WRITES THE FINISH OF THE FOREWORD

MY DEAR DOCTOR:

All that any man is given, in his beginning, is the opportunity to develop himself into the man of his youthful dreams. The materials for that development lie partly in himself and partly in his surroundings. In himself are the imagination to picture the kind of man he hopes to be ten, twenty or thirty years later, the foresight to shape his present activities so that he will develop into that man; and the patience and will power to pursue his determined upon line of action amid those who cannot see, who do not care, and who will not try. The materials that lie outside himself are the tasks and the people with whom he is to labor for the common good.

The bricklayer's questions are important because he drew for you the picture of the man he hopes to be a few years hence, and caused you to ask yourself what manner of man you expect to be when your life work is done. You suddenly realized that you had not asked yourself this question since the dreams of your youth began to fade in the light of your actual achievements. He brought the question back to you with a rush. You

found that it had gained in importance with the years because there are now others dependent upon you, and because you are some years older and the time for pronouncing success or failure is closer at hand. You know, in short, that if you are to make any considerable part of your success-dream come true, you must be about it immediately and intelligently. The other questions you asked yourself, "Why do I practise dentistry?" and "What is my remuneration?" were demands to know how to shape present activities to secure the desired results in the future.

The foregoing pages contain much of what is known in the way of answers to your questions. The answers may seem to you to be depressing. They do not seem so to me. That these men have been able to do this much without training in economics or the elements of business management, and in a period when the discussion of the economics of service has been frowned upon, seems to me remarkable. It is the best of testimony to the possibilities of the all-around success which lies at hand. Some practitioners have doubled their net incomes as the result of their attention to the economic discussions of the recent years. Think how much more the young men will be able to do when the dental colleges train them in the economics of service. Yes, doctor, the opportunity is here, the shortcomings are in ourselves, and can be remedied.

The answer to your question, "What is the life for

me and mine?" lies in yourself, in your imagination, foresight, courage and unfailing patience of application. It is easy to think that the people in some other community would make success easier than the people where you are, and if you are not among the class you are suited to serve, this may be true. But when you get to the other community, 90 per cent. of the elements of success will still be in yourself and only 10 per cent. in others.

We might do well to paraphrase Longfellow's words and hang upon our walls this little verse:

"Let us then be up and doing
With a heart to make our fate,
Still achieving, still pursuing,
Shape our future ere too late."

Yours for all-around success,

Bill

CODE OF ETHICS *

SECTION I.—In his dealings with patients and with the profession, the conduct of the dentist should be in accordance with the Golden Rule, both in its letter and its spirit.

SEC. II.—It is unprofessional for a dentist to advertise by hand-bills, posters, circulars, cards, signs, or in newspapers or other publications, calling attention to special methods of practice, or claiming excellence over other practitioners, or to use display advertisements of any kind. This does not exclude a practitioner from using professional cards of suitable size with name, titles, address and telephone number, printed in modest type, nor having the same character of card in a newspaper. Neither does it prevent a practitioner who confines himself to a specialty from merely announcing his specialty on his professional card.

SEC. III.—It is unprofessional for dentists to pay or accept commissions on fees for professional services, or on prescriptions or other articles supplied to patients by pharmacists or others.

SEC. IV.—One dentist should not disparage the ser-

* As unanimously adopted by the Illinois State Dental Society, 1909. From *The Dental Review*, 1909.

vices of another to a patient. Criticism of work which is apparently defective may be unjust through the lack of knowledge of the conditions under which the work was performed. The duty of the dentist is to remedy any defect without comment.

SEC. V.—If a dentist is consulted in an emergency by the patient of another practitioner who is temporarily absent from his office, the duty of the dentist so consulted is to relieve the patient of any immediate disability by temporary service only, and then refer the patient back to the regular dentist.

SEC. VI.—When a dentist is called in consultation by a fellow practitioner, he should hold the discussions in the consultation as confidential and under no circumstances should he accept charge of the case without the request of the dentist who has been attending it.

SEC. VII.—The dentist should be morally, mentally and physically clean, and honest in all his dealings with his fellow man, as comports with the dignity of a cultured and professional gentleman.

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